

**WORKING CAPITAL MANAGEMENT
IN THE TEXTILE INDUSTRY
A CASE STUDY OF
RELIANCE INDUSTRY LIMITED**



A

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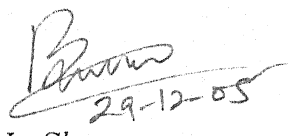
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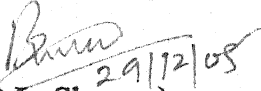
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DECLARATION

This is to certify that the present study "Working Capital Management in the textile industry – A case study of Reliance Industry Limited" is based on my original work and my indebtedness to other works & publications has been duly acknowledged at the relevant places. It has not been submitted in part or full for any other diploma or degree of any other university.

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PREFACE

The textile industry has played an important role in the industrial and economic development of India. This industry has achieved significant growth not only in terms of number but also in the quantum of investment over the last years. The textile industry falls back upon the government for major investment and also relies heavily on the capital market for the various types of funds.

Liquidity and profitability are two dimensions of a industry. An efficient and effective management of working capital enables an industry to maximum profitability and to maintain adequate liquidity in the business. The manner of working capital management determines to a large extent success and failure of an industry, the shortage of working capital is given out as its main reason. But the ultimate evaluation, it may be mismanagement of working capital. It is therefore, necessary to maintain an optimum level of working capital so as to higher profitability and to maintain adequate liquidity in the business. For some years industries in India have been finding it very difficult to maintain a sufficient amount of working capital due to a continuous drain on the finance by bank and other financial institutions. The industrial have, therefore to optimize the use of limited available resources at their disposal and efficient and effective working capital management.

The important of working capital is any industrial concern need not be over emphasized. The existence from an adequate supply, carefully administered, can make all the difference between the success and failure of an industry. In other words, profitability is determined in

part by the way of its working capital managed, when working capital is varied relative to sales without a corresponding change in production, the profit position is affected. Further more, if the flow of funds created by the movement of working capital through various business processes is interrupted the turnover of working capital is decreased, as is the rate of return on investment.

In order to conduct the present study is an important area of managerial and financial functions related to working capital was drawn and administered to the Reliance industry Limited. Annual report and accounts for the year from 1990-91 to 2000-2001. We have also collected the information through the interviews of the personal and other house magazines, reports, bulletin, files recovers questioners etc.

Reliance's textile complex at Naroda, Gujrat is one of India's largest & most modern textile complex. Reliance textile products are sold under the brand names of *Vimal*, *Harmony*, *Reance*, *RueRel*, *Slumberel* and *V2*. Reliance's flagship brand Vimal is one of India's largest selling brands of premium textiles.

The textile divisions R&D cell developed many new products such as polynosic blended high value fabrics; high performance shrink-resist machine washable wool blended fabrics : light weight, wash fast, flame retardant knitted net fabrics. The R&D also developed new processes such as optimization of disperse dyeing cycle using rapid disperse dyes, and substitution of transfer printing of knitted velour. R & D efforts of the textile division are aimed at continously developing cost-efficient processes and new product lines to remain competitive.

The present study is divided into eight chapters. The first chapter is introduction. The second chapter has been named as Basic concept of working capital management. The third chapter has analyzed of working capital and solvency position of the industry. In the fourth chapter we have analyzed inventory management. The fifth chapter is for the process of receivables and payables management. Cash management is the six chapter which evaluate the Cash management and cash planning and control in the unit. The seventh chapter we have Impact the inflation of working capital management. The last chapter deals with finding and suggestion of the study.

Sandeep Dixit
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I am indebted to the staff members, central library of university of Rajasthan, Jaipur, Central Library of Banaras Hindu University, Ratan tata Library, Delhi School of economics, South campus and central

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This research work cannot be performed without the blessings of professor S.P. Gupta, principal Veer Bhumi Govt. P.G. College Mahoba (U.P.). I am alone responsible for the statements made in this study and none of the persons cited above is in any way responsible for the errors that may still persist. I must thanks Shantanu Gupta for typing the final draft of this thesis excellently and most cheerfully. Words will never suffice to express the patience and understanding with which the members of my family have shared the work with me.

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CHAPTER - I

Introduction

- 1- History and development of textile industries in India.
- 2- An historical overview of Reliance Industries Ltd.
- 3- Structure of working capital
- 4- Objectives of study
- 5- Scope of the study
- 6- Data used for analysis
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1.1 History and Development of Textiles Industries in India :-

Indian textiles have been enjoying a unique and enviable worldwide reputation for more than 3000 years. When people in others parts of the ancient world content to be clad in hides and barks. Indians produced exquisite fabrics with aesthetically conceived designs of colorful diversity.

The growing of cotton appeared in India earlier than elsewhere people who inhabited the Indus valley used cotton to make their clothing's. In the oldest classical reference to cotton in European literature, Herodotus, the famous historian of ancient Greece, says with delightful ignorance, "Certain world trees that bear wool instead of fruit, which in beauty and quality, excels that of sheep and Indians make their clothes from these trees."¹

The Romans were acquainted with this tree-grown wool during their wars in the North East Asia. In ancient times, India had an active trade in textiles among other items with Rome. The Arab travelers in the ninth century India reported that, "In this country, they make garments of such extra ordinary perfection that no-where else is their like to be seen- sewed and woven to a degree of finance, they may be drawn through a ring of Moderate size."²

India has been the home of textile from time immemorial the fabrics whom the Indian handicraftsmen produced were so unrivalled for their

1- Hand book of Indian Cotton Textile Industry, (1965) PP. 32-33.

2- Ibid , 32-33.

beauty, delicacy and refinement that there was universal demand for them.

In the leading kingdoms of the ancient civilization, Indian textiles became a status symbol. The Dacca Muslim,³ southern's gold wrought cotton tissues and befits etc. acquired such a worldwide celebrity that their entry in to English market was stepped by legislation in that country. This was done with a view to keeping alive the cotton textile industry of Manchester, which got a set back in competition with the Indian Textile goods. At that time the Indian textile industry was organized on a handicraft basis. But certain inventions in England revolutionized the art o spinning and weaving. The use of power to drive machinery enabled England to turnout cheap cotton goods on a large scale. Moreover, to the Misfortune of Indian industry the country's political sovereignty was lost and the political subordination of India not only let to strangulation of India's European trade, but even at home she was left completely at the mercy of England, which forced upon her cotton peaces without the payment of duty. This situation resulted not only in the loss of foreign markets but even loss of a substantial part of the home market. The economic organization of India was also not favorable for an easy and early transformation of the industry from handicraft to factory form. Thus, The unfair foreign competition, absence of assistance from an alien government and the political and economic factors brought about the ruin of handicrafts in the eighteenth century. The acts of oppression and tyranny of the East India Company

3- The name Muslim was originally applied to fine cotton weaves made in Mogul from Indian Models.

resulted in a wholesale abandonment of the occupation of a large number of weavers and other highly skilled workmen.

In the 19th century, M/s Ferguson and company a leading firm of English traders in Calcutta put up the first cotton manufactory in India in 1817. The first mill, The Bow reach mill, situated 15 miles away from Calcutta comprised 20,000 spindles and 100 looms. The technical supervision was entirely non-Indians at least during the first two decades of its operation. In 1834, 7,50,000 lbs. of yarn were spun but the looms were not utilised due to non-availability of adequate steam power for running both spindles and looms. The mill was a commercial failure and ceased working in the 1840's. Undeterred by the unfortunate experience of the first enterprise, another Englishman, one Mr. Patrick, projected a mill. Also a few miles away from Calcutta on the banks of the river Hooghly. The second mill was known as the fort Glaster Mill. Details are not available about the spindleage of this mill when it was first set in to operation in the early years of the 1830,s. But in 1854 it has 30,000 spindles.

Prior to Mr. Patrick's venture in Calcutta, Monsieur Despassyus Administrator general of the French settlement in Pondicherry in the years from 1826 to 1829, had already made a start with the erection of composite mill ⁴ in Pondicherry. The mill was worked as a joint stock company and probably started work in 1829; although there is no specific contemporary evidence to that effect. In 1830 it had 22800 spindles and 454 looms worked by steam and 2000 workers were employed.

4- The mills which produce both yarn and cloth is called composite mills.

spindles were erected in Bombay's first mill. The spinning machinery was supplied by M/s John Heatherington & sons of Manchester. Soon after the first mill started working, Cowasjee combined with some other leading citizens of Bombay to float in 1857 the Bombay Throstle Mills company, after a few years the mill was sold to Tapidas varjivandas who relocated it as the alliance spinning and weaving mills. In the meanwhile he had launched.

Out another industrial enterprise, The cotton cleaning company. Maneckjee petit another pioneer was decided to float the oriental spinning and weaving company in 1855, at Bombay. Nearly three years later on May 27, 1858. The first years were spun in the oriental Mill. The weaving shed began functioning some months later, early in 1859. In 1858 Ranchhodlal another pioneer started a small mill company which was to have no more than 2500 throttle spindles in Ahmedabad. In 1861 the mill spun its first yarn. On Feb. 21, 1860 sir Mangoldas nathubhai floated the Bombay united spinning and weaving company, which was a composite mill. On March 22, 1860, sir Dinshaw petit started his first mill venture and designed it to be a spinning ⁵ unit. On Aug.1, 1860 the Bomanji Hormusjee spinning and weaving company was started by Bomanji Wadia. The mill was to be a composite mill and was to be located in kurla, which had then not become a part of Bombay. Kesowji Naik promoted the flotation of the Royal mill on Aug. 8, 1860 which too was a composite mill.

The growth of the mill industry during 1869 to 1892 was phenomenal. From 1892 to 1901 an amazing variety of unfortunate

5- The mills which produce only yarn is called spinning Mills.

circumstances made its appearance and cast its shadow over the fortunes of textiles industry. Till the end of the 19th century the textile mills were spread all over the country particularly in various centers like Ahmedabad, Sholapur, Bombay, Surat, Nagpur and Kanpur.

1.2 An Historical overview of Reliance Industry Ltd. :-

There is a truth in the idea of an eternal guiding light. There is an idea in the truth as purpose Dhirubhai H. Ambani embodies the first, and his vision empowers the second. Dhirubhai H. Ambani was the founder of Reliance Industry. Reliance vowed to continue on the path that Dhirubhai's unparalleled vision had charted for us.

The path is one of self-belief and destiny it is a path of constant challenge. It is a path where change brings with it a thirst for knowledge, the fulfillment of achievement and a sense of history. Many years ago Dhirubhai had looked in to the future and seen a time when natural treasures from beneath the land and the oceans would enrich India, and give his beloved nation a greater sense of pride and security. Dhirubhai saw an Indian Century. Reliance had in the past year the rare honor to fulfill the wishes of his founder. As a company Reliance had the great privilege of the care of their well-wishers and success in grand endeavours that Dhirubhai envisioned.

The company's yarn are marketed under various brand named such as texafit, texron, texlene, poly-dyed and polytwist. The company's fabrics are marketed under the brand name "VIMAL".

In 1990-91 sales rose by about 13.42% over the previous year. the company's PSF plant operated at nearly 100% of its installed capacity mainly due to good product quality and introduction of several new

products during the year. However, the margins of the PFY unit were adversely affected due to step increase in the excise duty by government in December 1990. Though sales of PTA registered increase of 34% over the previous year, substantial rise in the costs kept the margin under pressure. Sales of LAB rose by about 44% over the previous year mainly on account of increased export of Rs. 22 crores as against of Rs. 0.04 crores in the previous year. During 1991-92 the PFY unit under took the strategy of selective exports and sales of the PTA unit registered of 21% increase. As a step towards backward integration, The company commissioned a new facility of produce normal paraffin using kerosene. A be bottlenecking program was completed to increase the LBA capacity from 60000 TPA to 80000 TPA. The company shipping division acquired 3 ships specially built to carry ethylene and liquefied gases at temperature up to 104 degree Celsius. It was also proposed to acquire a few more ships such as oil tankers, product carrier's ethylene carriers.

The over all turnover increase to Rs. 2298.02 crores and exports improved by 44% to Rs. 81 crores. During 1992-93. The PSF unit achieved a capacity of over 100% while the FFY unit registered an increase in production of 17% respectively as compared to previous year. The PFY unit introduced a wide range of value added products including textured, twisted, high twisted dyed yarn. Commercial production of Ethylene Glycol was commenced and the unit recorded a capacity utilization of 86%. Also commercial production of polyvinyl chloride was begun and after a initial start-up problem, 100% capacity utilization was achieved. Trial run production of polyethylene was communicated at Hazira and during the year the shipping division acquired two tugs having a Bollara pull of 14 tones each. Approval was received from the

government towards acquisition of 2 suez-max crude oil tankers. Turnover and exports improved once again to Rs. 4105 crores and Rs. 121 crores respectively and the overall working resulted in improved profits. During 1993-94, turnover registered an increase of 30% over the previous year. The PSF & PFY divisions continued to operate at over 100% of capacity. The PFY division introduced two new products viz. Micro and multi-filament yarn. About 255000 tones of PTA was provided by the fibre intermediate division and during the year, The company sold MEG which was solely meant for captive consumption, to other polyester producers. Production at the polymer division increased by 64% 135000 tones by polyethylene was produced in the first full year of commercial production and during the year, several new and customized product range was introduced such as ultra stabilized raffia grade, high flow injection moulding grade and high ESCR blow moulding grade. The chemicals division was able to meet its requirement of normal paraffin by its own production. The overall working was reported to be satisfactory. During 1994-95 sales once again registered and increase 31% and the overall working improved due to the company taking full advantages of the opportunities arising from liberalization. During the year, The PSF and PFY division continued to register good results. The fibre intermediate business produced 257000 tonnes. Under the polymer's business, The PUC the brand name "RENON" was well received in the market. A new product octane LLDPE was introduced. During 1995-96 sales rose further to Rs. 7786.34 crores and export amounted to Rs. 79.88 crores. The overall working was reported to be satisfactory. Production of PSF was maintained at 90,000 tonnes despite shutdown taken at Patalganga and TFIL for debottle necking and

modernization also 250000 tonnes of PTA was produced apart from 95000 tonnes per annum of MEG and 18700TPA of PVC. During 1996-97, sales rose by 12% to Rs. 8730 crores and exports amounted to Rs. 66.62 crores. The company commissioned several world scale manufacturing facilities at its Hazira petrochemicals complex resulting in four fold increase in total capacity in completion of integration chain. The overall working improved mainly due to growth in sales, volume, plants operating at fully capacity, improvement in cost efficiencies higher value addition due to extension of the integration chain and better working capital nearly 7 million mtrs. Of high quality worsted suiting and balancing equipment in the processing section. The project to manufacture polyester viscose spum yarn by installing 23000 spindles was commissioned. Under liesence from E.I. Dupont De Nemours & Co., U.S.A., the company introduced 'Slumberal', Dacron fibre -filled pellow; This was to be followed by a range of decorative, comforts, quilts was matters. During 1997-98, sales rose by 54% to Rs. 13404 crores. Exports at Rs. 366 crores was sub stability higher. Sales volume achieved a crores was substantially higher. Sales volume achieved a growth of 91% as a result of successfully commissioning of all new plants at the Hazira petrochemical complex. A new 200000 tpa polythene plant, a new 120000 tpa mono ethylene giycol (MEG) plant a 30000 tpa polyester fibrefill (FF) plant and a new 350000 tpa purified terephthaline acid (PTA) plant were commissioned. Moreover the capacity of multified cracker was increased from 500000 tpa to 750000 tpa of ethylene. The company achieved operating margin stability despite lower international prices, primarily as a result of commissions of the cracker, sustaining lower raw material prices in the second half of

1997-98 an enhanced focus on cost reduction and productivity. During 1998-99 sales and exports improved to Rs. 15160.81 crores and Rs.685 crores respectively. During the year the commissioned the first line of 200000 tonnes of poly propylene at Jamnagar. The company had to face an unprecedented situation arising from the damage caused by an unloading mother vessel to primary feed stock supply system, The single buy moring at the Hazira petrochemicals. This led to cessation of the operations for a period of seven weeks. In april 1999 the company under took the commissioning of its Jamnagar petrochemicals complex. The operating margins remained almost stable sustained by the strong growth volumes, lower feed stock prices, cost reduction productivity gains etc. During 1998-99 sales improved by 9% to Rs. 14553 crores while exports at Rs. 685 crores was also considerably higher compared to previous year with the commissioning of the Jamnagar plant the production capacity of the plant increased to 9 million tones from the present 6 million tones. Production volume crossed 7 million tones despite dislocation of arising from the damage caused to the SBM. During 1999-2000, sales improved by 39% to Rs. 20301 crores while exports rose by 164% to Rs.1811 crores. During the year the company commissioned the paraxylene and the polypropyle plans at its Jamnagar manufacturing complex ahead of schedule.

PROJECTS AT PATALGANAGA :-

The company acquired land at MIDC industrial area at patalganga a backward area in Raiged district of Maharashtra where the following projects were set up :

- (i) Polyester filament yarn
- (ii) Polyester staple Fibre
- (iii) Linear alkyl benzene project
- (iv) Purified terephthalic acid (PTA)
- (v) Triethylene glycol (TEG)
- (vi) Oil and Gas Business.

RELIANCE ASSAM PETROCHEMICALS LTD. (RAPE) :-

During

1994-95 the company signed a memorandum of understanding with the government of Assam for implementation of RAPL, for manufacture of 300000 TPA of ethylene, 300000 TPA of polythene and 6500 TPA of oxo alcohols based on ethylene and propylene products from the gas crackers.

During 1993-94 the company was awarded the medium sized discovered oil and gas field exploration and production. The estimated quantity is 265 million barrels and 67 billion cubic meter of petroleum and natural gas respectively. During 1999-2000 the company was awarded a total of 14 offshore oil and gas exploration blocks by the Government of India. Total average for oil and gas exploration now exceeds 100000 square kilometers off the country's west and east coast.

PROJECT AT HAZIRA :-

The company has a acquired land at Hazira, in the state of Gujrat where the following projects were setup.

During 1992-93, the company proposed to set up a project for the manufacture of 70000 TPA of polyester yarn and 30000 TPA of bottle

grade PET chips in Hazira at a total cost of Rs.736 crores. The raw materials for the project viz. PTA & MEG would produced by the company itself. ICICI has appraised the project cost to be Rs. 736 crores and the project is to be based on Du point technology.

During 1997-98 the company under took to setup a new 400000 tpa polypropylene (PP) plant. During 1998-99 an accident occurred that dislocated the feed stock causing cessation of operations at the complex for a period of several works of even months.

RELIANCE PETROLIUM LTD. :-

The company has setup a refinery at village Motikhudi (Dist. Jamnagar), Gujrat, Under the name Reliance petroleum Ltd. At an estimated cost of Rs. 5142 crores. The refinaery with a capacity off 9 million tones has location advantage such as proximity to Arabian Gulf countries, the largest source of crude, accessibility to gulf of kutch, a shetered port with adequate water depth to handle crude carriers proximity to Kandla-Bhalundda oil pipeline etc. An MOV was signed with Bharat Petroleum Corporation Ltd. For marketing its products.

RELIANCE POWER :-

Reliance power intending to purse attractive opportunities in the power sector, with the objective of achieving aggregate capacity of over 10000 MW in the next 10 years. During 1999-2000 the company was awarded a 375 MW lignite based project at Ghogha, Gujrat.

RELIANCE TELECOM :-

Reliance Telecom Ltd. (RTL) is a separate company from the Reliance group. During 1996-97 the company was awarded eight licenses for cellular mobile telephone service in seven circles and basic telephone service in one circle. The cellular mobile telephone service licenses circle comprises of Assam Bihar, Himanchal Pradesh, Madhya Pradesh, North East, Orissa & West Bengal. These licenses are valid for 10 years and can be extended for another five years. The services provided are being implemented on a turnkey basis with prime contract having been given to Ericsson's Motorola. Reliance Telecom undertook two projects viz the cellular services. Business in seven circles and the basic services project in Gujarat. The seven circles cover 13 states nearly one third of Indian population. The project commenced services since the end of 1997 in over 20 cities. Under the basic services, Reliance plans to deploy a combination of wireless and wireline access networks integrated with state of the art digital equipment. A fiber optic backbone to retain flexibility for future growth working planned by company.

During 1999-2000, Reliance Mobile covered 36 locations in the first phase of its cellular roll-out implementation programme. The subscriber base was increased by 135% to reach 70000.

SUBSIDIARY :-

Devti Fabrics Ltd. Became a subsidiary of the company on 30th September 1985. Trishna investments and Leasing Ltd. Reliance industrial investments & holding Ltd. Reliance petrochemicals

Ltd. Also subsidiaries of the company.

GENERAL :-

The name of the company was changed from Mynylon Ltd to Reliance textile industries Ltd. The name of company was again changed from Reliance textile industries Ltd. To reliance industries Ltd. With effect from 27th June 1985.

Reliance industry has a research and development department it is an integral part of Reliance industry limited overall operation and are directed towards the corporate objective of growth and excellence. Reliance continuous to sponsor and participate in various R & D efforts at premier institutes in India and abroad including the Indian institute of technology, Mumbai; Jawaharlal Nehru center for Advanced Scientific Research, Bangalore, MBT, Pune; National Chemical Laboratories; University of Massachusetts, USA; and polymer institute Brno, Czech Republic.

For the first time in India, outsourced program at MBT Pune has resulted in coveted international publication elucidating combinatorial chemistry application in catalysis.

Reliance is committed to continuous improvement in quality for the entire range of its products. Reliance has full-fledged laboratory services at all its complexes employing around 800 international analytical methods and nearly 1600 instruments in 25 analytical facilities. Before some year under review the focus was particularly on activities with specific importance to management systems and process support studies. Six new facilities were created at Hazira to evaluate the quality of PE pipe, PET and furniture grade PP. Several studies were

also conducted to rectify process problems and improve the quality and yield of the final product.

The Reliance adopted TQM merit award for polymer laboratories and top trainer award. IMC Ramakrishna bajaj National Quality award 2002 for the Hazira complex.

Reliance is committed to provide adequate and modern occupational health and medical services to all its employees.

At Reliance clean environment for sustainable development is of prime concern, and is an important business objective achieved by every employee contribution and responsibility towards environmental performance.

A layered system of environmental monitoring and audit is followed in compliance with all environmental protection laws of the land through all project stages-from planning to commissioning and production.

The health safety and environment group at each manufacturing complex regularly monitors and audits specific maintenance systems to ensure regularly compliance. The Jamnagar refinery complex is currently in the process of implementing the environment management system conforming to ISO 14000.

A five point scalable approach sums up Human Resource practices at Reliance. The company believes in empowering colleagues through greater knowledge opportunity, responsibility accountability and reward. This is the bedrock of all growth at Reliance, where growth is life. It is the benchmark by which it gauges best practices as ideal employers and enablers in India and globally.

Reliance implicitly believes that corporate responsibility extends beyond the ambit of a company's facilities and offices. At that true corporate citizenship must include common cause with society. In keeping with this belief system. Reliance encourages, funds and develops numerous education health and human capital initiatives. While many of these initiatives are now recognized in India and abroad as model approaches we derive greater inspiration for our mission of partnership with society when graduates of Reliance-funded institutions of higher learning in cities children in Reliance-sponsored schools in villages and patients in Reliance led hospitals emerge to lead lives of aspiration good health and fulfillment.

Some special qualities of Reliance industries limited are as followed.

- The merger of Reliance Petroleum with Reliance industries was the largest merger in India's corporate history.
- Reliance acquired management control of IPCL, Marking India's largest disinvestments transaction.
- The discovery of Gas by Reliance in the Krishna-Godavari basin was the world's largest gas find in 2002.
- Reliance infocomm launched the largest infocomm infrastructure and services initiative by a new entrant any where in the world.

- Reliance acquired management control of BSES in the largest acquisition in the Indian power sector.

Under this study as a researcher I have analyzed the data of Reliance industries limited published in the Bombay stock exchange Directory and various annual reports of the company but my main focus centered on the textile division of Reliance industries limited.

1.3 STRUCTURE OF WORKING CAPITAL: -

The structure of working Capital is made of various components. Basic components of working capital are current assets and current liabilities. Current assets include inventories, receivables, cash and hand balance and easily convertible securities. Current liabilities include creditors bills payable, bank overdraft, outstanding expenses tax payable proposed dividends and income received in advance.

Inventory means tangible property held:

- (i) For consumption in the production of goods or service for sale, including maintenance supplies and consumables other than machinery spares, or
- (ii) In the process of production for such sale or,
- (iii) For sale in the ordinary course of a firm.

Managing working capital is synonymous with controlling inventories. Good inventory management is helpful to the structure of working capital. Goplan and Sandhilya are of the opinion that "Uncontrolled inventory can become an organization cancer."⁶

There can be no unanimity on the items, which should be included in an inventory. Broadly speaking, the inventories may be divided into raw materials, supplies, work in progress and finished goods.

Raw materials include the items, which are held in their original form for processing and production. Supplies are stores, spares and other goods which are consumed in the creation and distribution of goods and services. Work in process are raw materials upon which work has been performed to change their form, size physical or chemical properties. Finished goods include completely manufactured and inspected goods that ready for sale.

1.4 OBJECTIVE OF STUDY :-

Although the working capital management of textile industry may be made with any specific objects in view at the following are objectives of my research work.

- (i) To find out that the Reliance Industry Ltd. Have planned their working capital requirement properly;
- (ii) To assess the Reliance Industry Ltd. Controlled and utilised cash resources effectively and properly;
- (iii) To estimate the Reliance Industry Ltd. Utilised the investment in current assets effectively;
- (iv) How far have been Reliance Industry Ltd. Successful in controlling their receivables and to study the receivables management practices in the Reliance Industries Ltd;
- (v) What is the pattern of financing the working capital requirements and what changes, occurred (If any) in this area during the period of study;

- (vi) What are the problems in the area of working capital management of Reliance Industry Ltd;
- (vii) To estimate and examine to possibilities of future growth of textile units;
- (viii) To suggest a few programmatic and useful steps for the possible improvement in the area of working capital management in the company in particular and of the textile industry of the general;

Soloman Write⁷

A unique correct solution for the entire set of financing decisions must exist but our understanding of the very large number of Inter relationship is still too sample to permit the formulating of general solution that has operational significance even at the purely normative level. The present study, therefore, makes relationship by analyzing. The relationship between aforesaid variables. The study does not intend to offer a general (or unique) solution and present the exact degree of association.

The main purpose of financial analysis is to measure the nature and financial conditions of textile companies. The financial aggregates acquire significance study only in the light of a detailed understanding of the operating circumstances. The important variables of the major emphasis here remains on the analysis and interpretation of the financial statements. As for the tools for this analysis, it has been the ratio. Which dominated the scene for long, only a few accounting relationship used to be worked out to read about the textile company's present inherent

7- Soloman writes, op. cit; P.151.

stability and future growth prospects. A textile company is now seen hobnobbing with almost all of them, so that his present day kit consists of (1) Common size statement, (2) Trend analysis (3) Break even analysis; (4) Ratio analysis; (5) Fund flow analysis (6) Cash flow analysis

Broadly speaking ratios are calculated with reference to liquidity, activity, solvency and profitability, to indicate the effectiveness with which production and other functions have been coordinated. The ratio analysis of liquidity follows the uniform practice of computing an array of short-term solvency. Relationship from the balance sheets of textile industries. The purpose of financial analysis is to diagnose the current and past financial conditions. At this point, some general observations about financial analysis are appropriate. There is a say in that "If you do not know where you going, it does not make any difference what road you take to get there." This saying is relevant because one must decide the objectives of a test or what is to be measured before deciding which diagnostic tools should be used.

Thus the financial analysis undertaken here is to determine the significant operating of financial characteristics of textile industry from the accounting data present in the balance sheet. It is to provide a prices presentation of facts and guidelines that will aid decision making by industrial manager, inventors, creditors, laborers consumers, and all other groups who are considered with financial status of the industry. Its basic objective is to have a detailed cause and effect study of the financial strength and profitability. The seek to study the changes that have taken place in the working capital position over the period.

1.5 SCOPE OF STUDY :-

The study is essentially a cross section analysis of ten years, 1991 to 2000. The financial ratio contained in balance sheet and profit and loss accounts of textile companies, as published in Bombay Stock exchange official directory, constitute, the basic source of data. In addition, the published annual accounts and Kothari's Economic and industrial Guide.⁸ have been also consulted to supplement the above data base. The five textile companies listed on the Bombay stock exchange⁹ have been covered in the present study. The textile companies in the present work are broad industrial classes as provided by the stock exchange directory. The textile companies have also been classified of in to financial ratios.

The financial technique of ratio analysis and trend analysis common size analysis, fund flow analysis, break even analysis, method have been used to examine the effect of the independent variables on financial ratio analysis of textile companies. Four broad categories of the ratios formed on the basis of liquidity, solvency, activity and profitability have been analyzed in the present Study.

Although the scope of the study is broad yet the research design of the present work has been formed with several constraints. The major limitations are related to the selection of textile companies, financial variables and analytical technique as described in the subsequent chapters. The present study attempts to analyze the reasons for slow expansion and under utilization of capacity in textile industry by

8. Kothari's, Economic and industrial guide of India.

9. Bombay Stock Exchange official directory, Vol. 11.

investigating the financial analysis and working capital management of the textile industry at the company level.

1.6 DATA USED FOR ANALYSIS :-

The study is based upon the financial analysis statement prepared under currently accepted reporting standards and examines the availability of funds for short term and further to know that how a textile unit manage their working capital at company level.

The financial data for sample textile companies have been collected directly from textile company annual reports and various issue of Bombay Stock exchange directory. The reference period is 1991 to 2000. The initial sample include five companies. The financial data for a period of ten years prior to the data of collected.

Through an attempt has been made thoroughly in the face of practical limitations of data and we feel a considerable sense of confidence in the conclusions drawn from the study yet it is necessary to utter a warning here. The financial strength and weakness analysis system designed in this study is based wholly on published financial statement of companies and as such has its limitations. Financial ratios cannot be expected to do better than the financial statements, the basic source from which those are drive.

1.7 PERIOD OF STUDY :-

The data of the study pertain to one decade i.e., from 1991-2000. It was considered that a time span of

ten years could yield sufficient data to study the trends and the effect of government policies with regard to pricing and distribution of textile. Price fluctuation in such a long period cannot be denied. Therefore, financial ratios were taken as the tool of analysis so that the effect of inflation is eliminated or minimized as far as possible.

1.8 PLAN OF STUDY :-

The study has been organized in to eight chapters. The first chapter is introduction. This chapter explains history and business project. The second chapter has been named as Basic Concept of working capital management. This chapter explain theory of working capital, need of working capital types of working capital etc. The third chapter has devoted to Analysis of working capital and solvency. The fourth chapter we have analyzed Inventory Management. This chapter explains meanings, of inventory, objectives of inventory management, need to hold inventory, inventory control and structure of inventory. The fifth chapter is Process of Receivable and payable management.

Cash Management is the sixth chapter which evaluate the cash management and cash planning and control in the unit. The seventh chapter the Impact of inflation of working capital management. In this chapter involves many adjustment of working capital. The last chapter deals with finding and suggestion of the study.

1.9 HYPOTHESIS OF THE STUDY :-

The study has been pursued to test the following hypothesis with reference to Reliance Industry Ltd. In India.

- a. That proper working capital management improves liquidity and profitability positions of Reliance Industry Ltd.
- b. That external sources of finance particularly, bank credit are being extensively utilized in financing the working capital requirements of industry in India.
- c. That the scope of improvement in the working capital management is greater in inventory management as well as receivables management, than in cash management and financing of working capital.
- d. Reliance industry is an agent of socio-economic change in Indian society in the field of textiles.

1.10 RESEARCH METHODOLOGY :-

This study is done with the help of secondary data. The secondary data have been collected and compiled from the annual report and accounts of Reliance Industry Ltd. We have also collected the information through the interview of the personal who are working at the various limits of arrangement in the Reliance industry Ltd. Another source of the secondary were mostly have magazines. Reports, bulletin, files records, The Bombay stock exchange official directory reports etc. A study of the causes of changes that take place in the balance from time to time is necessary. The involves the basic approach to working capital analysis.

Changes in balance can be measured in rupee amounts and also in percentages by comparing current assets, current liabilities and working capital over a given period.

There are many techniques to analyze the working capital in a firm e.g. fund flow analysis through working capital budget, process of receivable management, cash management, inventory management VED analysis, cost volume profit analysis, Ratio analysis etc.

Working capital management through Ratio analysis have been also selected for testing. These are the ratios that experience has indicated are closely associated with sustained financial view of working capital. They have been chosen on the basis of their vociferous usage in security and investment selection. Cannon of financial management and principles of accounting theory have over wheel singly maintained that these ratios can presumably explain the behavior of future rate of a concern.

Pertinent considerations, inter alia, which guided the selection of these financial view of working capital of Reliance industry as under:-

- (i) Data availability which permitted the calculation of financial ratios of working capital across the textile companies.
- (ii) Reasonableness and general acceptability of ratios in relation to their intended use on a prior assumption of strong relation ship between the Financial ratio and the event of interest.
- (iii) The development of a comprehensive set of ratios by types, liquidity ratios, solvency ratio, and profitability ratio. These types of ratios have been shown to have considerable merit in financial reference of working capital.
- (iv) The financial relate with working capital which have in general proved to be efficient in earlier investigations.

CHAPTER - II

Basic Concept of Working Capital Management

- 1- Theory of working capital.
- 2- Need of working capital.
- 3- Importance of working capital.
- 4- Industry practice with regard to working capital management.
- 5- Types of working capital
- 6- Factors influencing working capital requirements.
- 7- Financing of current assets.



2.1 THEORY OF WORKING CAPITAL :-

Working

capital management is concerned with short-term financial decisions have been relatively neglected in the literature of finance. Working capital at the honored definition says professor Harry G. Gauthaman and Herbert E. Doygell, “ Working capital is the excess of current assets over current liabilities” ¹ and according to James C. Van, Horne; “ Working capital management usually considered to involve the administration of current assets- namely, cash, marketable securities receivables and inventories and the administration of current liabilities” ²

Accountants hand book ³ completely endorses this view while to Professor Genstenberg, “ Any comprehensive discussion on the working capital included. The access of current assets over current liabilities” ⁴ The current assets refers to those assets which in the ordinary course of business can be, or will be turned in to cash with in one year without undergoing a diminution in value and without disrupting the operations of a unit. The major current assets are cash, marketable securities, accounts receivable inventories and prepaid expenses. Which are intended at their inception to be paid in the ordinary course of

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1. Gauthaman, Harry, G. and Dougell, Herbert E. “Corporate financial policy”, Prentice Hall, New York, Third Edition 1955, P.387.
 2. James C. van Horne, “ Financial management and policy” (New Delhi) : Prentice Hall of India (P) Ltd.,1993.P.384.
 3. Wixon Rufus (ed.) “Accountants hand Book”, The Ronald Press Company New York Fourth Edition, 1957 P.254.
 4. Genstenberg, E.W., “Financial organization and management”, Prentice Hall, New York, Fourth Edition 1959, P.282.

business with In a year out of the current assets or earnings of a concern. The basic current liabilities are accounts payable, bills payable; bank over draft and out standing expenses.

Working capital is defined in the annual survey of industries to include Materials stores in the stock semi finished goods and by products, fuels cash in hand and bank the algebraic some of sundry creditors as represents by

(a) out-standing payment e.g., wages, interest dividend, salary etc.

(b) Purchase of goods and services.

(C) Short-term loans and advance and sundry debtors.

Comprising amounts due to the factory on account of sale of goods and services and advances towards purchases and Tax payments.⁵ This supports the view of professor Gauthaman and Dougall.

An support to this view has been advanced by some renowned financial analysis, for example, Dr. colm park and professor John, W. Gladson say, "Most commonly, working capital is defined as the excess of current assets of a business (cash accounts, receivables, inventories, for example) over current items owed to employees and other (such as salaries and wages payable taxes owed to Government)"⁶ and R.D. keneddy and professor S.Y. Memullen also said , "A working Capital deficit exists it current liabilities excess current assets."⁷

5. Central statistical organization, Government of India, Calcutta, cabinate secretariat, Annual survey of Industries. Vol. III 1964, P.(1)

6. Park, Colin and Gladson, John W. "Working Capital", McMillan Company New York, First Printing 1963, P.2.

7. Keneddy Ralph, P., and Mc Millan, Stwerty "Financial Statements from analysis and interpretation" Recharh D. Irwin, Illinois, Fifth Edition 1968 P.266.

On the other hand, many authorities on business finance deem working as the portion that circulates from one from to another in the ordinary conduct of business. This idea embraces the running transaction from cash to inventories to receivable to cash that forms the conventional chain of business operations.

- As against this, there are authorities who hold that the working capital should mean the total current assets less the total current liabilities. "It has also been stated that when ever working capital is mentioned, it brings to mind current assets and current liabilities with a general understanding that working capital is the difference between the two." ⁸
- Professor J.I. Bogen is in complete agreement with this explanation of the term and think that "Working capital and current assets are interchange terms". ⁹

The propents of the view (i.e. working capital is the total of current assets) like Mead ¹⁰ Malott baker ¹¹ and field ¹² say that :-

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- 8- Gole V.L. "The Management of working capital" The Australian Accountant, Melbourne, Vol XXIX, No.6 June 1959 P.319
 - 9- Bogen, July I. Financial hand book, The Ronald Press Company, New York, Revised printing 1957, P.709.
 - 10- Mead, Eward, S.Corporation financ, Applition century Co., New York 1993, P.303
 - 11- Baker John C. and Mallit D.W. "Introduction to corporate Fianance, McGraw-Hill Book Co. New York, 1936 P. 92
 - 12- Field Kenneth, Corporation finance, The Ronuld Press Co. New York 1938 PP 173,175 & 180

- 1- The fixed assets assisting the firm in profit earning. Constitute its fixed capital, so the current assets should be taken to mean the working capital.
- 2- The management is more with concerned the total current assets as they constitute the total funds available for operating purpose than the sources of the funds.

According to L.J. Gitman, "Networking capital can be defined in to ways (1) The difference between current assets and current liabilities (2) That portion of a concern current assets, which is financed with long term funds." ¹³

There are two concepts of working capital Gross and Net. Gross Working capital refers to the total of all current assets. Gross working capital has several components which together go to make up the current assets of the concern the most important among them being inventories and book debts. All current assets a part from cash, have ultimately a common goal. Namely conversion in to cash. Inventories like new materials, store and spares etc. convert themselves in to work in process, which again converts it self in to finished goods. Finished Goods convert themselves in to book debts and ultimately in to cash.

- Net working capital is quit useful for internal control of a company. Networking capital helps in comparing the liquidity of the same concern over time, For the purpose of working capital management there for, Net working capital

13- L.G. Git man, "Principles of Managerial Finance" New York harper and Row 1976 P.150

can be said to measure the liquidity of a concern. In other words, the aim of working capital is to manage current assets and liabilities in such a way that an acceptable level of Net working capital is maintained.

- Efficient working capital management requires that a concern should operate with some amount of Net working capital. The expected amount will vary from concern to concern and depend among other things, on the nature of the industry. The theoretical justification for the use of net working capital to measure a concern's liquidity is based on the premise that the greater the margin by which the current assets over the short term obligations the moveable will it be to pay its obligations when they become due for payment. Net working capital is necessary because the cash out flows and inflows do not coincide. In other words, it is the non-synchronous nature of cash flows that makes net working capital necessary. In general cash out flows resulting from payment of current liabilities are relatively predictable the cash in flows are however, difficult to predict to the more predictable the cash in flows are, the less will be the networking capital requires.

- The term "Net working capital has a qualitative aspect in as much as it provides an index of the financial health of any particular concern. In fact, it is indication of the margin of safety available to the concern for the provision of long term and non-current funds for creation of current assets. This net working capital will also come in hand to meet

short-term liabilities which arise from time to time during the course of business.¹⁴

14. G.R. Ayer. Lecturer, "Working capital management", 1979, P.55

- Both the "Net and gross concepts have operational significance. From the management view point the term "Net working" can be defined in two ways: (i) The most common definition of net working capital is the difference between current assets and current liabilities (ii) alternate definition of net working capital is the portion of firms current assets which is financed with long term funds.¹⁵ the Gross concept is a going concern concept in which management is particularly interested because for the productive utilization of fixed assets all the current assets are necessary. The net concept is useful to gauge the financial soundness of a concern and is of special interest to sundry creditors and suppliers of short-term loans and advances. It creates confidence among the creditors about the security of their amounts.

- Working capital management is an integral part of the over all financial management. Proper management of working capital is an important element in the success of an enterprise. It aims at protecting the purchasing power of assets and maximizing the return on investment.¹⁶

It is proper that while using the term "working capital" one should make its meaning clear. Since the main objective of the present study is to examine the practice in the working capital management of textile industry. A case study in Reliance industry a critical examination of various tools for evaluation of working capital has been done to find out the actual position prevailing in these textile industries.

15. Gitman, L.J "Principles of managerial Finance" (New York), Harper and Row, 1976, P.150

16. David B., Zenoff and Jack Jwick, "International Financial management" Prentice Hall. Inc. Englewood Cliffs, New Jersey, 1969, P.228.

2.2: NEED OF WORKING CAPITAL : -

To achieve this it is necessary to generate sufficient profits. The objective of financial decision making is to maximize the shareholder's wealth.¹⁷ The extent to which profits can be earned will naturally depend on the magnitude of the sales, among other things. A successful sales promotion programmer is in other words necessary for earning profits by any concern. However, sales are not converted in to cash instantly. There is in variably a time-lay between sales of goods & receipt of cash, There is, therefore, a need for working capital in the form of current assets to deal with the problem arising out of the lack of immediate realization of cash against good sold. Thus, sufficient working capital is necessary to sustain sales activity. Technically, This is referred to as the operating cycle can be said to at the heart of the need for the working capital. The continuing flow from cash to suppliers, to inventory. To account receivable and back in to cash is what has been called the operating cycle.¹⁸

According to O.M. Joy, "The term cash cycle refers to the length of times necessary to complete the following cycle of events :

- (a) conversion of cash in to inventory.
- (b) Conversion of inventory in to receivable
- (c) Conversion of receivable In to cash.¹⁹

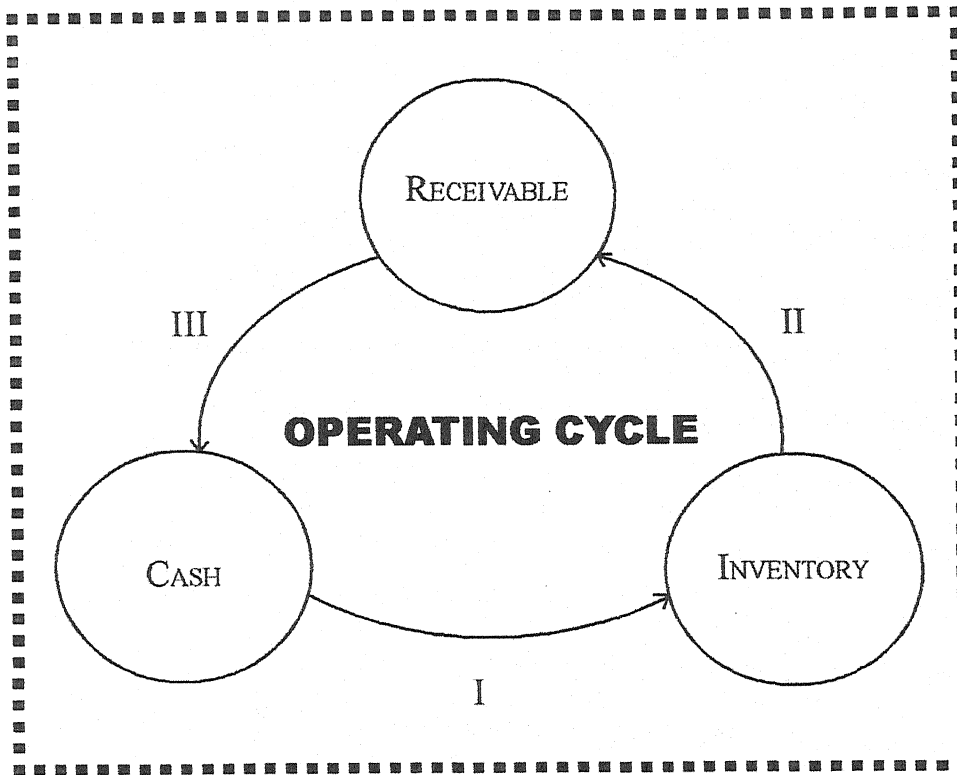
17. M.Y. Khan and P.K. Jain, "Financial management", New Delhi, Tata McGraw Hill Publishing Co. Ltd., 1982, P.625

18. K.V. Smith, "Management of working capital" (New York) West publishing company. 1974, P.7

19. O.M. Joy, "Introduction to financial management" Home wood Illinos Richard D. Irwin Inc. 1977, P.625

The operating cycle, which is a continues process is shown :

OPERATING CYCLE



There are three kinds of motives for holding inventories in the textile industry. There are transaction motive, Precautionary motive and speculative motive.

Inventories are hold merely for the purpose of carrying on the transaction smoothly, and, at the same time to ensure that the cost of ordering is kept minimal. Such a motive is called "Transaction motive". Some times inventories are increased as a pledge or protection against stock out when it becomes, clear to management that the lead time for any particular item is likely to increase or there is a possibility of short supply. This reason for in increasing the safety stock is purely a

precautionary measure and, therefore, goes under the category of "precautionary motive". Lastly a situation may arise when an all round price increase, is expected due to market demand or due to changes in cost. In such a situation the management is keen to hold on to inventories or increase them in order to get a better price for the finished goods like yarn and fertilizer. Such a motive is known as "Speculative motive".

There are certain particularities in the management of working capital of textile industry in this study. It is therefore, worth while to understand some of the basic factors which influence financial decision in regard to the working capital needs of the textile industry.

1- Constantly moving price level inject a certain amount or uncertainty in determining the volume of working capital which in turn will reflect changes in the price level in generally economy. In other words, working capital needs changes with the rising inflation in economy, particularly in the matter of inputs, as a result of which cash flows and profitability statements no longer remain valid for purpose of control.

2- While lending, undue importance is given by banks to inventories as a measure of security, especially in times of depression, "when accounts receivables might be an usually important factor. This phenomenon results in denial of funds to a borrower on the basis of lack of adequate inventory.

3- More business produce does not come to rescue against the background of government policies in regard to its quantum, availability of license in time as well as correlated factor, all of which determine the volume of inventory and consequently the volume of working capital.

4- A high level of taxation has also influenced the need for more working capital interest of borrowed money is deduct able as a business expenses for the purpose of corporate taxation. Paying more interest on borrowed money as any day cheaper to the industrialist than pumping in of this own fund. Industrialist therefore, justifiable think of financing long term requirements from borrowed funds only.

5- Any change in the government policy relating to taxation and periodically of its payment has a significant influence on working capital requirement. For instance, payment of sale tax, excise duty, octroi etc. With in fifteen days instead thirty days from the close of quarter will obviously require more working capital.

6- It appears that inflation has come to stay in our economy. This inevitable means that the working capital requirements will always be going up.

A industries always need two types working capital

- (i) Permanent working capital
- (ii) Temporary working capital

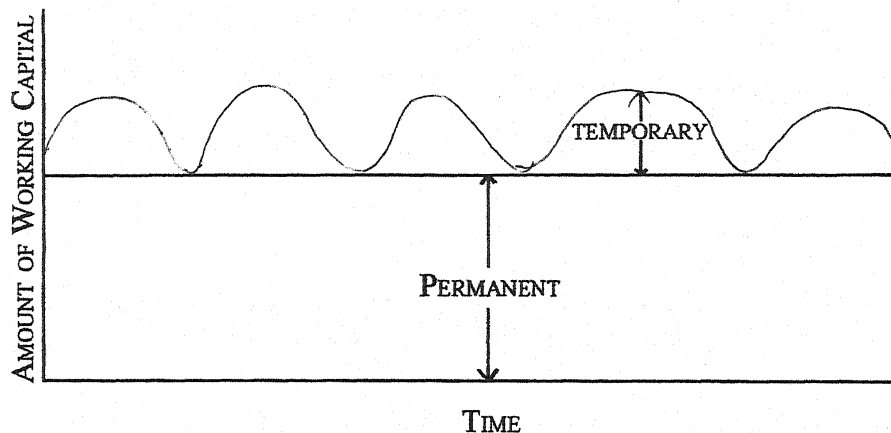
The operating cycle creates the need for current assets (working capital).

The need does come to an end after the cycle is completed. It will continue to exist. To explain this continuing need for current assets a distinction should be drawn between permanent and temporary working capital.

The need for current assets arises as already observed because of the cash cycle. Business activity does not come to an end after the realization of cash from customers. For a company, the process is

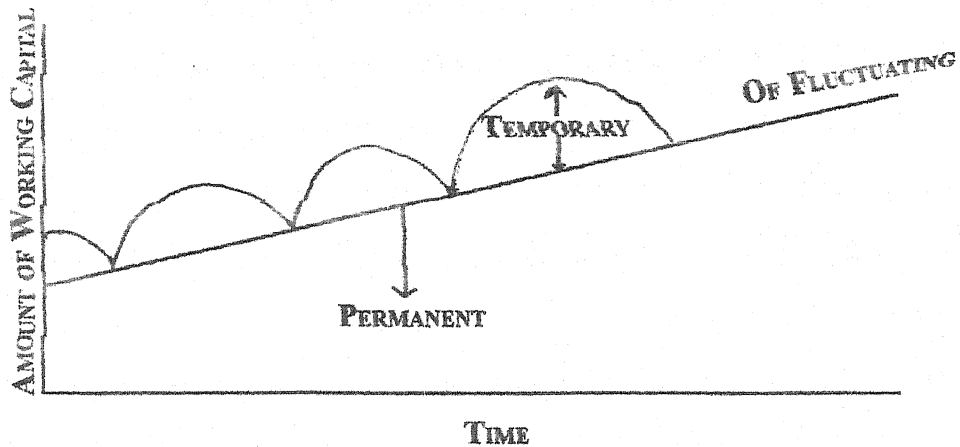
continuous and hence, the need for a regular supply of working capital. However, the magnitude of working capital required will not be constant, but will fluctuate. To carry on business a certain minimum level of working capital is necessary on a continuous and uninterrupted basis. For all practical purpose this requirement will have to be met permanently as with other fixed assets. This requirement is referred to as permanent or fixed working capital.

Any amount over and above the permanent level of working capital is temporary, fluctuating or variable working capital. This portion of the required working capital is needed to meet fluctuations in demand consequent upon changes in production and sales as a result of seasonal changes. The basic distinction between permanent and temporary working capital is illustrated in shown:



The permanent level is fairly constant, while temporary working capital is fluctuating sometimes increasing and some times decreasing in accordance with seasonal demands. In the case of an expanding firm the permanent working capital line may not be horizontal. This is because

the demand for permanent current assets might be increasing (or decreasing) to support a rising level of activity. In that case the line would be rising one as shown :-



Both kinds of working capital are necessary to facilitate the sales process through the operating cycle. Temporary working is created to meet liquidity requirements that are of a purely transient nature.

2.3 IMPORTANCE OF WORKING CAPITAL :-

Working capital may be regarded as the life blood of an concern, its efficient management can do much to ensure the success of an concern while its inefficient management can lead not only to loss of profits but also to the ultimate downfall of what otherwise might be considered as a promising concern.

A reasonable rate of return on investment and a good reputation in the business world are generally the two meaningful criteria for viewing the efficiency of a business enterprise.²⁰ There is an ancient saying in India that you should consume even by incurring debt. The concept of working capital is very similar to what has been said in this age old adage, i.e.; one should grow rich with some one else's money. To the business community, working capital is the lifeblood and the blood that runs through the body corporate is to a large extent, borrowed blood. An industrialist little realizing that it is also their responsibility to ensure that this blood is kept disease free, thereby avoiding chances of ill-health.

Proper management of working capital is very important for the success of a concern. It aims at protecting the purchasing power of assets and maximizing the return on investment.²¹ The manager of management of current assets to a very large extent determines the success of operations of a concern. Constant management is required to maintain appropriate levels in the various working capital accounts.²²

20. Mishra, R.K. "Problems of working capital" Bombay, Somaiya publications, 1975, P.10.

21. David, B. Zeniff and Jack Zwiots, "International Financial management" Bangleward cliffs, New Jersey: Prentice Hall Inc. 1969, P.288

22. E.F. Donaldson, "Corporate finance" New York; Ronald Press Company 1957. P.49

cash and financial budget aid in, establishing proper proportions. Sales expansion dividend declaration, plant expansion, new product line, increased salaries and wages, rising price level etc. But added strain on working capital maintenance. Failure of business is undoubtedly due to poor management and absence of management skill. Shortage of working capital, so often advanced as the main cause of failure of an industrial concern is nothing but the clearest evidence of mismanagement of it which is so concern.²³

No general agreement exists as to the criteria on the basis of which business efficiency may be viewed. In spite of this agreement, a reasonable rate of return on investment and a good reputation in the business world can be suggested as the two meaningful criteria for viewing, the efficiency of a business enterprise.²⁴ In earning a reasonable rate of return the functional complementary proportional and technical role of working capital play a great part.

In earning a reasonable rate of return, The functional complementary, proportional and technical roles of working capital can not be ignored. As regards the functional role, it may be fairly well placed that fixed capital represents the productive component of the business. It is utilized with or act upon the current or circulating capital to produce revenue. The expenditure of this class of capital is expected

23- M.H.Abd. E.L. "Working capital, Its role in the short term liquidity policy of industrial concern's" accounting research, Vol. 9 (1958), London, P.266.

24- Mishra R.K. "Problems of working capital" (Bombay Somaiya Publications, 1975), P.12

to be recovered only over a period of years through depreciation charge, which are in an element of cost. On the other hand, investment in working capital are relatively temporary in nature since the invested values are capable of being recovered within a short period of time depending upon the manufacturing cycle, as well as the collection cycles. In other words, it is the working capital, which after its transaction in to saleable products, actually generates revenue for business. Adequate working capital provides the business a cushion against the adverse effects of a shrinkage in the value of current assets, ensures to a great extent the maintenance of company's credit standing and provides for meeting contingencies.

The complementary relationship between working capital and fixed capital is readily apparent. A fully equipped industrial enterprise without a supply of materials to process or without cash to pay for workman's wages and other current expenses or a store with out merchandise to sell is virtually useless. Consequently the working capital position of any enterprise may readily become the controlling factor in determining the scope and charter of its operation.

Working capital has also a technical role to play in maximization of the rate of return. An industrial concern can maximize its rate of return on the capital invested provided it keeps pace with the scientific and technological developments. Taking place in the field in which a concern operates. It is common to suggest that as soon as some technological and scientific development takes place, an industrial concern in order to accelerate its profitability should immediately introduce the same to its productive process. It relates however, the sufficiency of working capital will determine the course of decision in this regard.

The major portion of a financial managers time is utilized in the management of working capital.²⁵ Current assets account for a very large portion of the total investment of a very large textile industry. Our analysis about that textile industry in Reliance. Current assets on an average represent over 30 percent of the total assets during the period of six or seven years covered by our study.

The relationship between sales growth and current assets is close and direct. A textile industry may, some times, be able to reduce investment in fixed assets by taking those on renting or leading plant and machinery. How ever it can not avoid investment in cash accounts receivables and inventory. The management of working capital also help the industry management in evaluating various existing or proposed financial constraints and financial offerings.²⁶

All the above factors clearly indicate the crucial importance of working capital management in textile industry.

2.4 INDUSTRY PRACTICES WITH REGARD TO WORKING CAPITAL MANAGEMENT :-

Proper

Management of working capital must ensure adequate amount of working capital as per the needs of the textile industry. It should be in good size (health) and efficiently circulated. To have adequate, healthy and efficient circulation of working capital, it is necessary that working

25- J.Fred Weston and Bigene F. Brigham, "Essentials of managerial Finance" (new York : Holt Rinechart and Winston Inc. 1971, P.297

26- Willion Bernek, "Working capital Management" (California : Weds worth publishing company Inc. 1966) P.2

capital be properly determined and allocated to its various segments, effectively controlled and regularly reviewed. The discussion that follows is concerned with the examination of industry practices in this regard and an attempt has been made to find solutions to some important aspects.

Industry practice to regard with working capital management are as usual it takes short term assistance from various commercial banks, development banks and other financial corporation and it owns sources. Company also takes credit faculties in the part of their supplier and creditors available in the market as per the status or goodwill or recorgnization of the company.

For working capital management be required the availty of working capital management in this process. The proper use of working capital must be necessary to so the over all picture of working capital management of selected textile industries in India are soon by the following table.

**Exhibits :- 2.1 SHOWS THE WORKING CAPITAL OF
SELECTED TEXTILE INDUSTRIES**

(Fig. In 000Rs.)

YEAR	RAYMOND LTD.	CENTURY ENKA LTD.	GRASIM INDY. LTD.	MODIPON LTD.	RELIANCE INDY.LTD.
1990-91	493508	981503	5906500	218590	3349400
1991-92	818812	982063	6140600	184422	3178200
1992-93	853138	1127023	8357800	242931	12404400
1993-94	1225031	1271126	5278100	332393	23752700
1994-95	1709343	714141	11260200	500929	24648300
1995-96	948887	1154113	10772100	317640	20828600
1996-97	3715721	1317913	10605400	165330	4955600
1997-98	2145258	1179357	9033200	120370	15808100
1998-99	3578498	1329899	7433300	147636	36206400
1999-00	3173766	942173	11572100	53800	53815400

Source :- Bombay Stock Exchange Official Directory

2.5 TYPES OF WORKING CAPITAL :-

A industry have many types working capital.

2.5.1 Net Working Capital :-

The net working capital is the difference between the current assets and current liabilities. The concept of net working capital enables a firm to determine how much amount is left for operational requirement.

2.5.2 Gross Working Capital :-

Gross working capital is the amount of funds invested in the various components of current assets. This represents quantitative approach of working capital.

2.5.3 Permanent Working Capital:-

Permanent working capital divided in two part :-

2.5.3.1. Regular Working capital :-

Regular working capital is the minimum amount of liquid capital needed to keep up the circulation of the capital from cash to inventories to receivables and back again to cash.”²⁷

It is necessary for adequate supply of raw materials and enough cash in bank balance to discount the bills.

27- R.M. Chiuminatte; Secrety and Treasurer Hobery paper mills, Green Bay, wisconsin taken from lillion daris “Business Finance hand book”, New York, 1953, P. 6

2.5.3.2. Reserve Margin:-

This is the excess over the need for regular working capital that should be provided for contingencies that arise at unstated period.”²⁸ This includes rising price business depreciation and special operation.

Permanent working capital has the following characteristics :-

- (a) It is classified on the basic of the time factor.
- (b) It constantly changes from one assets to another and continues to remain in the business process;
- (c) It size increase with the growth of business operation.

2.5.4 VARIABLE WORKING CAPITAL :-

It represents the additional Assets which are required at different times during the operating year additional inventory, and extra cash, etc. Seasonal working capital is the additional amount of current assets particularly cash, receivable and inventory, which is required during the more active business seasons of the year.

2.5.5 BALANCE SHEET WORKING CAPITAL:-

The balance sheet working capital is one which is calculated from items appearing in the balance sheet. Gross working capital, which is represented by current assets over current liabilities.

2.5.6 CASH WORKING CAPITAL:-

Cash working capital is one which is calculated from the items appearing in the profit and loss account. It shows the real flow of money of value at a particular time. It is basis of the operational cycle concept which has assumed great importance in financial management in recent years.

2.5.7 WORKING CAPITAL DEFICIT :-

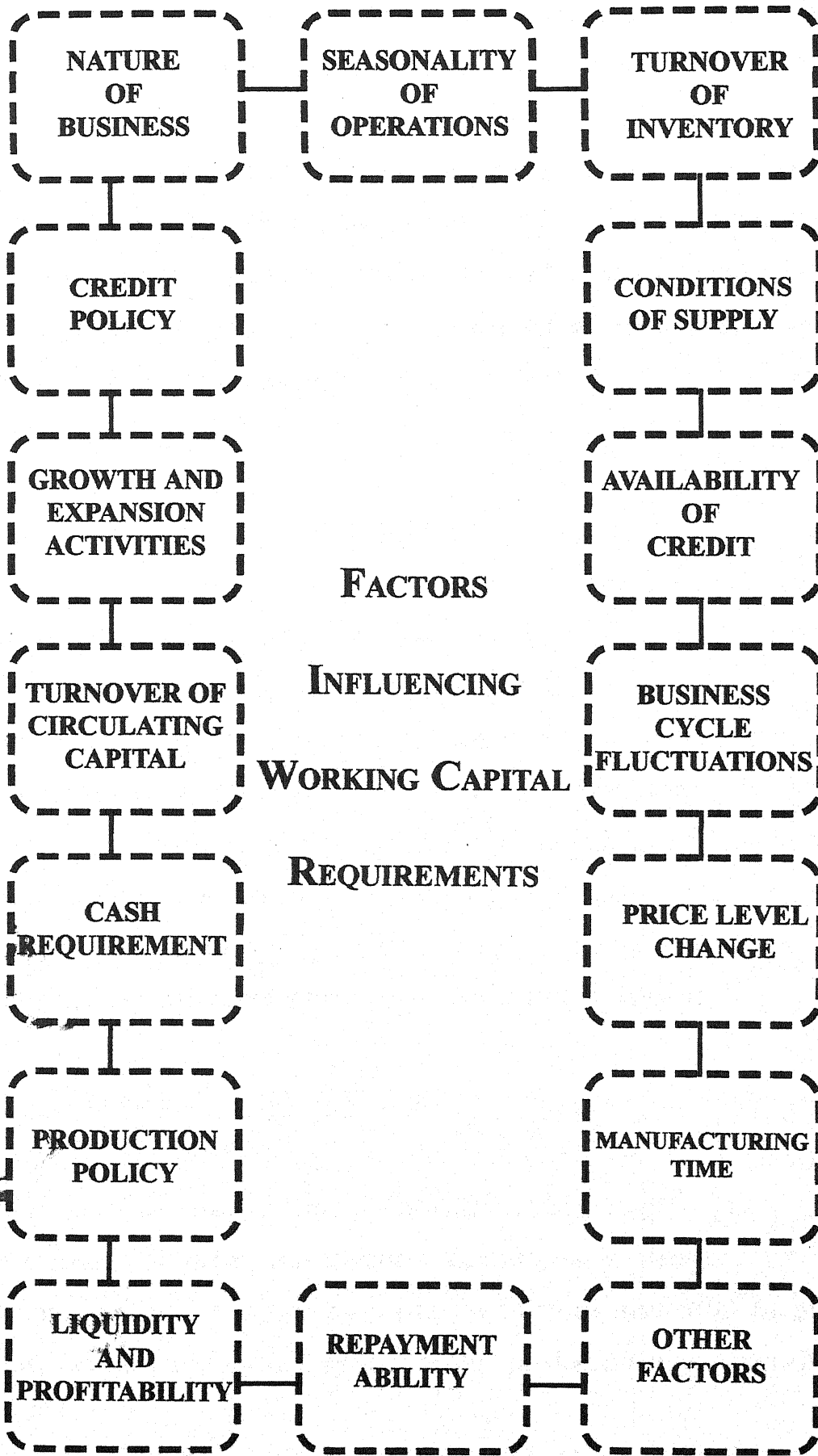
Working capital deficit emerges when current liabilities exceed current assets. Such a situation is not absolutely theoretical and occurs when a firm is nearing a crises of some magnitude.

2.6 FACTORS INFLUENCING WORKING CAPITAL REQUIREMENT :-

There are no set rules to determine the working capital requirements of the industry. Ledger number of factors influence the working capital needs of a concerns. All factors are of varied importance. Also the relative importance of the various factor change even in the some industry overtime therefore an analysis of the relevant factors should be made in order to determine the total investment in working capital. The description of the important factor which generally influence the working capital of requirements of concern as given below.

2.6.1 NATURE OF BUSINESS :-

The nature of business effects the working capital requirements in every business enterprises, there is a



natural cycle of activity. The successive movements in this cycle will be different from one company to another according to the nature of the company. A company like the electricity board, which has a short operating cycle and which sales predominately on cash basis, has a modest working capital requirements on the other hand it is apparent that amount of working capital required and its level at any particular time will be governed directly by speed with which has a long operating cycle and which sells largely on credit has a very substantial working capital requirements.

2.6.2 SEASONALITY OF OPERATIONS :-

Business which have marked seasonality in there operations usually have highly fluctuating working capital requirements. The working capital need of such a business enterprise is likely to increase considerably is seasonal months. On the other hand, a business enterprise manufacturing a product which has fairly even sale around the year tends to have stable working capital. Thus if there is a decline in the economy. The company's products and services will decrease which will necessitate the company to reduce its productive capacity in order to adjust its production to demand.

2.6.3 PRODUCTION POLICY :-

A company's working capital requirements are also affected by the production policy adopts. It has been described earlier that seasonal fluctuations in demand had its influence on the size of working capital. A company may either adopt a steady production policy or they confine their production only to periods

when goods are purchased to meet the fluctuating demand in its products.

2.6.4 CONDITIONS OF SUPPLY :-

The inventory of raw materials spare and stores depends on the conditions of supply is prompt and adequate, a industry manage with small inventory. However, if the supply is unpredictable and scant, then to ensure continuity of production of a concern would have to acquire stocks as and when they are available and carry large inventory on an average.

2.6.5 CREDIT POLICY :-

The credit policy affects working capital by influencing the level of book debts. The credit terms to be granted to the customers may depend upon the norms of the industry to which the business enterprise belongs. "In order to ensure that unnecessary funds are not tied up in book debts., The business enterprise should follow a rationalized credit policy based on the credit standing of the customer & other reevaluate factors" ²⁹ The business enterprise should evaluate the credit standing of new customers and periodically review The credit worthiness of the exiting customers.

2.6.6. AVAILABILITY OF CREDIT :-

The company needs less working capital if the company is able to raise working capital funds at liberal credit terms and without much delay & problems either from banks and suppliers easily on favorable conditions will operate. On the

other hand, a company which cannot easily get working capital funds from the above source on favorable terms will have to operate with more working capital.

2.6.7 GROWTH AND EXPANSION ACTIVITIES :-

The working capital needs of a company increase as it grows in terms of sales. "It is difficult to precisely determine the relationship between volume of sales and the working capital needs. The critical fact, However, is that the needs for increase working capital funds does not follow growth in business activities but precedes it".³⁰

2.6.8 PRICE LEVEL CHANGE :-

Price level changes also affect the working capital requirements of business enterprise. Generally, the rising price level will require an enterprise to maintain higher amount of working capital. The same level of current assets will need increased investment when prices are increasing. However, The companies which can immediately revise their products prices which the rising price level will not force a severe working capital problem. Further, the effects of the increasing general price level will be felt differently by the company as individual prices may move differently. It is possible that some company may not be affected by the rising prices while may be badly, hit by it.

30. Ramamoorthy, V.E. ; "Working capital management" institute of financial management and Research Madras, 1976, P.58

2.6.9 TURNOVER OF CIRCULATING CAPITAL :-

The speed with which the circulating capital completes its round, i.e. conversion of cash in to inventory or raw materials and stores, inventory of raw material in to work in process and conversion of work in process in to inventory of finished goods, inventory of finished goes into book debts and book debts in to cash accounts pay an important and decisive role in Judging. The adequacy of working capital.

2.6.10 BUSINESS CYCLE FLUCTUATIONS :-

Requirements of the working capital of the companies which experience seasonal and cyclical fluctuations in the demand for their products and services are affected by the business fluctuations. At time, when the price level comes up and boom conditions prevail, The Psychology of the management is to pile up a big stock of raw materials.

2.6.11 CASH REQUIREMENT :-

Cash is one of the current assets which is essential for the successful operation of the production cycle. Cash should be adequate and properly utilized. It would be wasteful to hold excessive cash. A minimum level of cash is always required to keep the operations going. Adequate cash is also required to maintain good credit relations. "Richards Osborn has pointed out that" cash has a universal liquidity and accept ability. Unlike non liquid assets, its value is clear cut and definite."³¹

31.Kulkarni, P.V. : "Financial Management", Himalayas Publishing House, ed.1983,P.391

2.6.12 MANUFACTURING TIME :-

The working capital requirement of a company which produces goods are also affected by its manufacturing time. The manufacturing time starts with the purchase and use of raw materials and completes with the production finished goods. Longer the manufacturing time, larger will be the company's working capital requirements and vice-versa.

2.6.13 TURNOVER OF INVENTORY :-

The ratio of annual revenue to working capital measures the number of time current assets are converted back into cash during a year. The greater the number of times the inventories are sold and replaced (The inventory turnover) the lower the amount of working capital required.

2.6.14 LIQUIDITY AND PROFITABILITY :-

If a company desires to take a greater risk for bigger gains or losses, it reduces the size of its working of capital in relation to its sales. If it interested in improving its liquidity, it increase the level of its working capital. However, this policy is likely to result in a reduction of the sales volume and therefore of profitability.

2.6.15 REPAYMENT ABILITY :-

A company repayments ability determines level of its working capital. The usual practice of an business enterprise to prepare cash flow statements according to its plan of repayments and to fix the working capital levels.

2.6.16 OTHER FACTORS :-

In addition to the above considerations, there are a number of factors which effect the amount of working. The absence of the co-ordination in policies of production and distribution of goods and absence of specialization and result in high need of working capital. If the means of transportation and communication are not well developed, the concern may need high investment in the working capital. The seasonal variation and credit rating efficiency of a company in a particular business also affect the size of working capital. The relationship between dividend policy and working capital is well established and very few concern declare a dividend without considering its effects on cash.

IMPACT OF DOUBLE SHIFT WORKING ON WORKING CAPITAL REQUIREMENT :-

If the firm which is presently running in single shift, plans to go for working in double shift the following factors should be considered while assessing the working capital requirements of the company.

- Working in double shift means requirement of raw materials will be doubled and other variable expenses will also increase drastically.
- With the increase in raw materials requirement and expenses the raw material inventory and work in progress will increase simultaneously the creditors for goods and creditors for expenses balance will also increase.

- Increase in production to meet the increased demand which will also increase the stock of finished goods. The increase in sales means increase in debtor balances.
- Increase in production will result in increased requirement of working capital.
- The fixed expenses will increase with the working on double shift basis.

The finance manager should re assess the working capital requirements if the change is contemplated from single shift operation to double shift.

ZERO WORKING CAPITAL :-

This is one of the latest trends in working capital management. The idea is to have zero working capital i.e., at all times the current assets shall equal the current liabilities. Excess investment in current assets is avoided and firm meets its current liabilities out of the matching current assets. As current ratio is 1 and the quick ratio below 1, there may be apprehensions about the liquidity, but if all current assets are performing and are accounted at their reliable values these fears are misplaced. The firm saves opportunity cost on excess investment in current assets and as bank cash credit limits are linked to the inventory levels, interest costs are also saved. There would be a self imposed financial discipline on the company to manage their activities within their current liabilities and current assets and there may not be a tendency to over borrow or divert funds. Zero working capital also ensures a smooth and uninterrupted working capital cycle, and it

would pressure the finance managers to improve the quality of the current assets at all times, to keep them 100% realizable.

There would also be a constant displacement in the current liabilities and the possibility of having overdue may diminish. This tendency to postpone current liability payments has to be curbed and working capital always maintained at zero.

Zero working capital would call for a fine balancing act in financial management, and the success in this endeavor would get reflected in healthier bottom-lines.

OVERTRADING :-

Overtrading arises when a business expands beyond the level of funds available overtrade means an attempt to finance a certain volume of production and sales with inadequate working capital. If the company does not have enough funds of its own to finance stock and debtors. It is forced, if it wishes to expand to borrow from creditors and from the bank on overdraft sooner or later such expansion, financed completely by the funds of others will lead to a chronic imbalance in the working capital ratio expansion is advantageous so long as the business has the funds available to finance the stocks and debtors involved. Over trading begins at the point where the business relies on extra trade credit and increased turnover are financed by taking longer periods of credit from suppliers and or negotiating an extension of overdraft limits with the bank. Over dependence on outside finance is a sign of weakness unless the expansion is curtailed suppliers may refuse credit beyond certain limits and the bank may call for a reduction of the overdraft. If this happens, the business may be insolvent in that it does not have

Sufficient liquid resources (cash) to pay for current operations or to repay current liabilities until. Customers pay for sales made on credit terms, or unless stock is sold at a loss for immediate cash payment.

The following ratios will analysis the situation properly :-

Working capital	=	(Current assets : Current liabilities)
Acid Assets	=	(Quick assets : Current liabilities)
Stock Turnover	=	(Stock : Cost of sales)
Debtors Turnover	=	(Debtors : Credit purchases)
		(Debtors : Creditors)

The object of using these ratio is to detect a deterioration of the liquidity position of the business and increasing Reliance upon trade creditors and overdraft facilities.

OVERCAPITALISATION AND WORKING CAPITAL:-

If there are excessive stocks, debtors and cash, and very few creditors, there will be an over investment in current assets. The inefficiency in managing working capital will cause this excessive working capital resulting in lower return on Capital employed and long-term funds will be unnecessarily tied up when they could be invested else where to earn profit.

SYMPTOMS OF POOR WORKING CAPITAL MANAGEMENT :-

In general, the following causes are seen in inefficient management of working capital.

- **Excessive carriage of inventory :-**

Excessive carriage of

Inventory over the normal levels required for the business will result in more balance in trade creditors accounts. More creditors balances will cause strain on the management in management of cash.

- **Slow down in the collection of debtors :-**

Working capital

problems will arise when there is a slow down in the collection of debtors.

- **Purchase of capital good out of working capital :-**

same times capital

goods will be purchased from the funds available for working capital. This will result in shortage of working capital and its impact is on operations of the company.

- **Excessive Stocks of Finished Goods :-**

Unplanned production schedules

will cause excessive stocks of finished goods or failures in meeting despatch schedules. More funds kept in the form of cash will not generate any profit for the business.

- **Inefficiency In Using Potential Trade Credit :-**

In efficiency in

using potential trade credit require more funds for financing working capital.

- **Over Trading :-**

Over trading will cause shortage of working capital and its ultimate effect is on the operations of the company.

- **Depend On Short Term Sources Of Finance :-**

Dependence in short term sources of finance for financing permanent working capital causes lesser profitability and will increase strain on the management in managing working capital.

- **Embezzlement of Cash :-**

Infancy in cash management cause embezzlement of cash.

- **Inability :-**

Inability to get working capital limits will causes serious concern to the company and some time may turnout to be sick.

UNDER CAPITALIZATION :-

Under capitalization is a situation where the company does not have funds sufficient to run its normal operations smoothly. This may happen due to insufficient working capital or diversion of working funds to finance capital items. If the company faces the situation of under capitalization it will face difficulties in meeting current obligations procurement of raw material and stores items, meeting day to day running expenses etc. Its impact will ultimately be the reduced turnover and reduced profitability. The

finance manager should take immediate and proper steps to overcome the situation of under capitalization by making arrangement for the sufficient working capital. For this purpose he should prepare the realistic cash flow and funds flow statements of the company.

2.7 FINANCING OF CURRENT ASSETS :-

The current assets of a firm are supported by combination of long term & short term sources of financing. The important source of long term financing are shares, debentures, preference shares, retained earning and long term debt from financial institution,” The long term sources of finance provide support for a small part of current assets requirement which is called the working capital margin”.³² Working capital margin represents the difference between current assets and current liabilities. Short term financing refers to those sources of short-term credit that the firm must arrange in advance. These sources include short-term bank loans, commercial papers and factoring receivables. The short term sources of finance, referred to also as current liabilities, Providing the major support for current assets, consist of (i) accruals and provisions, (ii) trade credit (iii) short term bank finance, and (iv) short term public deposits.

Current assets can also be financed by spontaneous financing. The major source of such financing are trade credit (creditors & bills payable) and outstanding expenses. Spontaneous source of finance are cost free, therefore, a firm would like to finance its current assets with

32. Prasanna chandra : “Financial management theory and practice”, Tata Mc Graw Hill Publishing company Ltd. 1984, P.335

spontaneous sources as much as possible. In fact, the choice is not as simple and several complex considerations are involved. There are reasons for using short term funds or current liabilities in addition to spontaneous³³. Viz. – flexibility and cost even when they tend to magnify the risk. Thus short-term funds enable a firm to repay them when its need abates. It need not store them only to fund out later in marketable securities.

The three important approaches of financing of current assets are (i) matching approach (ii) Conservative approach, and (iii) aggressive approach.

2.7.1 MATCHING APPROACH :-

The term refers to a process of matching maturities of debts with the maturities of financial needs.³⁴ A firm can adopt a financial plan which involves the matching of the expected life of assets with the expected life of the source of funds raised to finance assets. Thus, a ten year loan may be raised.

To finance a plant with an expected life of ten years; stocks to be sold in twenty days may be financed with a twenty day bank loan and soon. Thus, when The firm follows matching approach (also known as

33. Spontaneous funds refer to portion of accounts payable and accruals which in trade and industry circles are considered nearly "Free and costless" needless of stress that they would entail 'negligible' or no cost only when used within limits. Firms generally use them within limits laid down by usage or convention.

34. Gitman L.J. "Principles of managerial finance" (New York) , Harper and Row, 1976 P.157

hading approach) long term financing will be used to finance fixed assets and permanent current assets and short term financing to finance temporary or variable current assets.

2.7.2 CONSERVATIVE APPROACH :-

An exact matching plan

may not be followed in practice. A firm may adopt a conservative approach in financing its current and fixed assets. The financing policy of the firm is said to be conservative when it depends more on long term, funds for finance needs. Under a conservative plan, The firm finances, its permanent assets and a part of temporary current assets with long term financing. Thus, in periods when the firm has no temporary current assets, it stress liquidity by investing surplus funds in to marketable securities.

2.7.3 AGGRESSIVE APPROACH :-

Under an aggressive policy, the firm finances a part of its permanent current assets with short term financing. Some extremely aggressive firms may even finance a part of their fixed assets with short term financing. The relatively more use of short term financing makes the firm more risky. This policy is followed by the firm when it users more short term financing than warranted by the matching plan.

METHODS FOR ESTIMATING WORKING CAPITAL REQUIREMENTS :-

There are three methods for estimating the working capital requirements of a company.

- 1- Percentage of sales method
- 2- Regression analysis method.
- 3- Operating cycle method.

[A] Percentage of sales method :-

It is a traditional and simple method of determining the level of working capital and its components. In this method working capital is determined on the basis of past experience. If over the years, the relationship between sales and working capital is found to be stable than this relationship may be taken as a base for determining the working capital for future.

[B] Regression analysis method :-

In simple regression, the Relationship is between one explaining or independent variable and one dependent variable. In multiple regression there are more than one independent variable. For example the requirement of working capital is depend on nature of business manufacturing process credit policy etc. Simple and multiple regression can be further divided in to linear and non linear types. In linear regression the explained, or dependent variable varies at a constant rate for a change in the independent variable. This constant rate of change can be expressed in absolute terms or percentage.

The constant rate of change gives a straight line on a log scale. In non-linear regression the dependent variable changes at a varying rate for a change in the independent variable the requirement of working capital increases rapidly with initial dose of nature of business manufacturing process credit policy there after it increase at a lower rate. It yields a curve of a graph.

In total regression all the important variables are taken in to account most of the business or economic activities are affected by multiplicity of causes. In partial regression three more variables are considered nature of business, manufacturing of process and credit policy.

[C] Operating Cycle Method :-

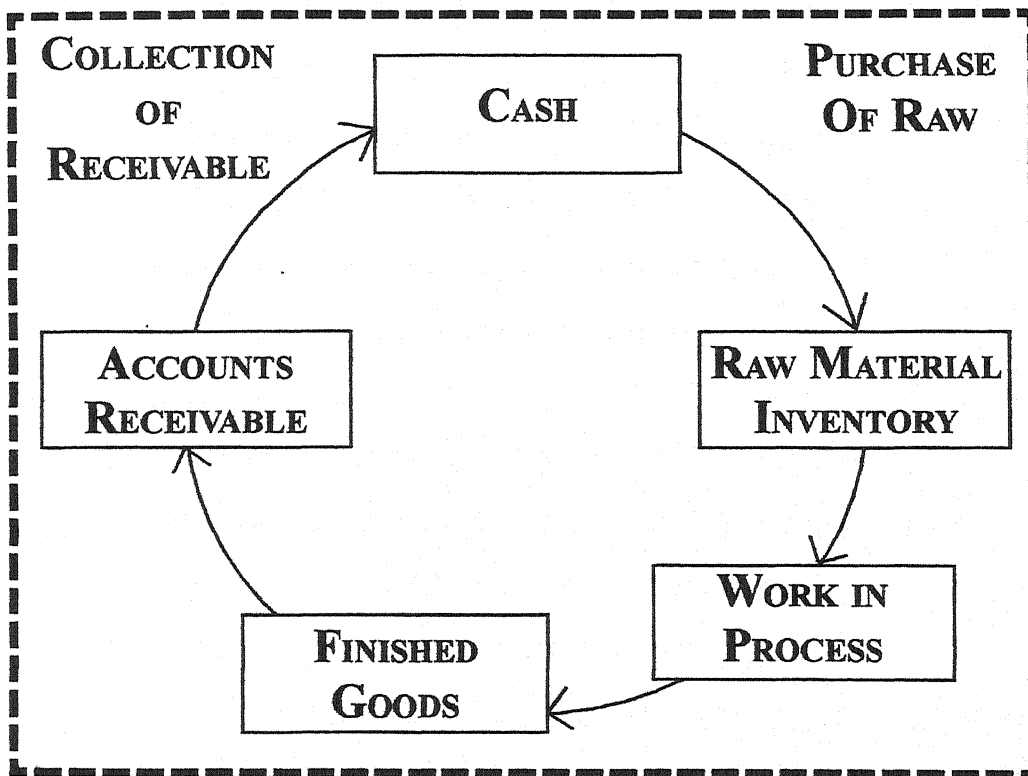
A new method which is gaining more and more importance in recent years is the operating cycle method of working capital. The operating cycle refers to the average time elapses between the acquisition of raw materials and the final cash realization.

Cash is used to buy raw materials and other stores, so cash is converted into raw materials and stores inventory. Then the raw materials and stores are issued to the production department. Wages are paid and another expenses are incurred in the process and work in process comes in to existence. Work in process becomes finished goods. Finished goods are sold to customers on credit. In the course of time, these customers pay cash for goods purchased by them. Cash is retrieved and the cycle is completed.

Operating cycle consists of four stages:

- The raw materials and stores inventory stage.
- The work in progress stage
- The finished goods inventory stage
- The receivable stage

The operating cycle of working capital is shown in figure.



IMPORTANCE OF OPEARTING CYCLE :-

The application of operating cycle is mainly useful to as certain the requirement of cash working capital to meet the operating expenses of a going concern This concept based on the continuity of the flow of values in a business operation.

Those values usually flow in a going concern. Center, mainly around the operational activities of a business in any period. This is an important concept because the longer the operating cycle, the more working capital funds the firm needs. Management must ensure that this cycle does not become too long. This concept more precisely measures the working capital fund requirements, traces its changes and determines the optimum level of working capital requirements.

The following could be the reasons for the longer operating cycle period.

- Purchase of materials in excess/short of requirements.
- Buying inferior, defective materials.
- Failure to get trade discount, cash discount
- Inability to purchase during seasons.
- Defective inventory policy
- Use of protected manufacturing cycle.
- Lack of production planning, co-ordination and control
- Mismatch between production policy & demand
- Use of out dated machinery, technology
- Poor maintenance and up keep of plant, equipment and infrastructure facilities.
- Defective credit policy and slack collection policy
- Inability to get credit from suppliers, employees.
- Lack of proper monitoring of external environment etc.

The aim of every management should be to reduce the length of operating cycle or the number of operating cycles in a year. Only then

the need for working capital decreases. The following of few remedies may become handy in contrasting the length of operating cycle period.

Purchase Management :-

The purchase management owes a responsibility in ensuring availability of right type of materials in right quantity of right quality at right price on right time and at right place. These six R's contribute greatly in the improvement of length of operating cycle. Further, Streamlining of credit from supplier and inventory policy also help the management.

• Production Management :-

The production manager effects the length of operating cycle by the managing and controlling manufacturing cycle, which is a part of operating cycle and influences directly. Longer the manufacturing cycle, lower will be the operating cycle and higher will be the firms working capital requirements. The following measures may be taken :-

- Proper maintenance of plant, machinery and other infrastructure facilities.
- Proper planning or co-ordination at all level of activity.
- Up-gradation of manufacturing system technology.
- Selection of the shortest manufacturing cycle out of various alternatives etc.

- **Marketing Management :-**

The sale and production policies should be synchronized as far as possible. Lack of matching increases the operating cycle period. Production of qualitative products at lower costs enhance sales of the firm and reduces finished goods storage period. Effective advertisement, sales promotion activities, efficient salesmanship, use of appropriate distribution channel etc. Reduce the storage period of the finished products.

- **Sound Credit And Collection Policies :-**

Sound credit and collection Policies enable the finance manager in minimizing investment in working capital in the form of book debts. The firm should be discretionary in granting credit terms to its customers. In order to see that the receivable conversion period is not increased the firm should follow a rationalized credit policy based on the credit standing of customers and other relevant facts. The firm should be prompt in making collections. Slack collection policies will tie up funds for long period increasing length of operating cycle.

Proper monitoring of External Environment :-

The length of operating cycle is equally influenced by external environment. Abrupt changes in basic conditions would affect the length of operating cycle. Fluctuations in demand, competitors, production and sales policies ,

government fiscal and monetary policies changes on import and export front price fluctuations etc. should be evaluate carefully by the management to minimize their adverse impact on the length of operating cycle.

These measures, if adhered properly, would go a long way in minimizing not only the length of operating cycle period but also the company's working capital requirements.

CHAPTER - III

***Analysis of working capital &
solvency***

- 1- Analysis of working capital.
- 2- Importance of adequacy of working capital
- 3- Working capital of the Reliance Industries Ltd
- 4- Working capital turnover ratio .
- 5- Solvency ratio.



3.1 ANALYSIS OF WORKING CAPITAL :-

Working capital is a vital and dynamic aspect as financial management. It is regarded that portion of the total capital of a company which is put to a variable operation purpose. This efficiency of a business industry to turn profits depends largely on its ability to manage working capital efficiently and effectively. Working capital management has acquired paramount importance in the recent past, especially with a view of tight and stringent money conditions, prevailing in the economy. Working capital management is an integral part of overall financial management and is concerned with problems that arise in attempting to manage the current assets and current liabilities and interrelationship that exist between them.¹

A very common and popular method of computing working capital is to find out the difference between current assets and current liabilities. In other words, working capital refers an excess of assets over liabilities. Algebraically, working capital = Current Assets - Current Liabilities.

This formula gives the net working capital, which is available for financing day-by-day requirements of company. Net working represents the amount of the current assets, which would remain if all the current Liabilities were paid.² In this context, it is an important to mention that

1- Smit, K.V. :- "Management of capital", New York, west Publishing company. 1974, P.S.

2- Kennedy, R.D. and McMillen, S.V., "Financial Statment", Rechard D. Irwin, Inc. Home -wood Illidis, 1968 PP. 256-266.

current assets must exceed current liabilities and then only there can be working capital.

On the other hand, if the current liabilities exceed the current assets there is no working capital but there is working capital deficit. However, the excess of total assets of a business over its total obligations represents the interest of the shareholders in the business which the accountants call "capital".

So also the excess of current assets over current liabilities is called "working capital".

Fitzerland defined current assets as "current assets may be include cash and other assets which are expected to be converted in to cash in the ordinary course of business with in one year of such longer period of constitutes the normal operating cycle of a business." Further he defined current liabilities "As current liabilities are those liabilities where liquidation is reasonable expected to require the use of the existing resources property classifiable as current assets of the creation of other assets, or the creation of other current liabilities." ³

In this way, the current assets and current liabilities are following round in a business like and electric current. The working capital plays the same role in the business as heart in human body. Just like heart gets blood and circulated the same in the body, in the same way working capital funds are generated and these funds are circulated in the business. As and when this circulation stops, The business becomes lifeless. It is because of this reason that the

3. Gole, V.L. Fitzgerald's "Analysis and Interpretation of financial statements, Butterworths, Sydney, 1968, P.51.

working is known as the circulating capital as it circulates in the business just like blood in the human body. The funds generated from issue of shares, borrowing and from operations are used to pay creditors for material etc.

The materials are proceeds; wages and overhead expenses are paid. This makes available stock of finished goods by sales of which either debtors are created or cash is received, thus generating profit. A portion of profit is utilized for payment to tax, interest and dividends. This cycle continues throughout the life of business. Thus, working capital is an important ingredient of functioning of business concern.

3.2 IMPORTANCE OF ADEQUACY OF WORKING CAPITAL :-

Business progress depends upon the proper use of working capital. If working capital is not well managed and inadequate an enterprise can not achieve good operating results. Just as circulating of blood is essential in the human body to maintain life, smooth flow of funds is very necessary to maintain the health of business enterprise. Working capital should be sufficient to enable a company to conduct its business on most economical basis and without financial stringency to meet and emergencies and losses without danger of financial default. Adequate working capital is also necessary to protect from a shrinkage in the value of current assets. Adequately to working capital makes it possible to take advantages of cash discount. It enables the company to operate its business more efficiently because there would be no delay in obtaining materials, services and supplies. It also helps to determine credit terms to customers. However,

availability of adequate working capital also provided safety for meeting emergencies such as strikes, floods and fires etc.

It should also be noted here that excess working capital, specially in the form of cash and marketable securities, may be as unfavorable as inadequacy of working capital because of the large volume of funds not being used productively. Idle funds involve a lower amount of income and often lead to investment in undesirable projects or in unnecessary plant faculties and equipment. In fact, availability of excess working capital may lead to carelessness about cost and therefore, to inefficiency of operation.

Thus, proper management of working capital must ensure adequate amount of working as per needs of a business firm. It should be in good health and circulated efficiently. To have adequate healthy and efficient circulation of working capital, it is necessary that working capital be properly determined and allocated to its various segments, effectively controlled and reviewed.

3.3- WORKING CAPITAL OF RELIANCE INDUSTRY LTD. :-

For the analysis of working capital, the indices of current assets, current liabilities and net working capital have been computed. The share of each item of current assets, current, current liabilities to its total has also been worked out and presented through exhibit 3.1 as given below :-

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Exhibit : 3.1 : Showing Components of Working Capital of Reliance Industries. (Rs. in crores)

Particulars\Year	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00
A. Current Assets										
Cash & Bank Balance	4.04 (3.47)	7.53 (4.90)	50.57 (20.09)	9.79 (2.67)	36.68 (8.31)	155.53 (34.42)	86.37 (19.22)	213.35 (36.76)	489.76 (54.12)	108.15 (10.13)
Sundry Debtors	40.65 (34.9)	73.12 (47.65)	91.58 (36.38)	143.06 (39.09)	111.01 (25.16)	100.58 (21.62)	133.32 (29.67)	140.61 (24.22)	148.97 (16.46)	206.39 (19.33)
Inventory	41.15 (35.63)	40.49 (26.38)	52.31 (20.78)	58.46 (15.97)	66.25 (15.02)	75.96 (16.32)	108.54 (24.16)	134.39 (23.15)	140.86 (15.57)	182.32 (17.08)
Misc. Current Assets	30.64 (26.30)	32.34 (21.07)	57.24 (22.75)	154.70 (42.27)	227.26 (51.51)	133.26 (28.64)	121.09 (26.95)	92.12 (15.87)	125.31 (13.85)	570.59 (53.45)
Total Current Assets	116.48 (100.00)	153.48 (100.00)	251.70 (100.00)	366.01 (100.00)	441.21 (100.00)	465.33 (100.00)	449.32 (100.00)	580.47 (100.00)	904.90 (100.00)	1067.45 (100.00)
Indices of current Assets	100	131.76	216.09	314.22	378.78	399.49	385.75	498.34	776.87	916.42

Particulars\Year	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00
B. Current Liabilities										
Loans & Advances	37.26 (44.90)	35.63 (29.28)	50.07 (39.22)	15.78 (12.28)	55.08 (28.29)	65.88 (25.63)	55.79 (13.95)	6.59 (1.56)	32.70 (6.02)	142.72 (26.96)
Sundry Creditors	40.79 (49.15)	66.68 (54.79)	68.46 (53.63)	98.59 (76.73)	118.11 (60.65)	161.69 (62.90)	307.22 (76.86)	336.60 (79.69)	357.96 (65.94)	319.37 (60.34)
Prov. for Taxation	- -	- -	- -	- -	- -	- -	4.84 (1.21)	10.80 (2.56)	13.80 (2.54)	19.50 (3.68)
Misc. Current Liabilities & Provision	4.94 (5.95)	19.38 (15.93)	9.13 (7.15)	14.12 (10.99)	21.53 (10.06)	29.48 (11.47)	31.91 (7.98)	68.40 (16.19)	138.38 (25.50)	47.71 (9.02)
Total Current Liabilities	82.99 (100.00)	121.69 (100.00)	127.66 (100.00)	128.49 (100.00)	194.72 (100.00)	257.05 (100.00)	399.76 (100.00)	422.39 (100.00)	542.84 (100.00)	529.30 (100.00)
Indices of current Liability	100	146.63	153.82	154.82	234.63	309.73	481.63	508.96	654.10	637.78
Net Working Capital (A-B)	33.49	31.79	124.04	237.52	246.49	208.28	49.56	158.08	362.06	538.15
Indices Of Net Working Capital	100.00	94.92	370.38	709.22	736.01	621.92	147.98	472.02	1081.09	1606.89

Note :- Figures in Parenthesis shows percentage of respective items taking total of respective lead at hundred .

Source :- The Bombay Stock Exchange official Directory & Annual Reports

Current assets of Reliance industry Ltd. included inventory, cash & Bank balances sundry debtors and Misc. Current assets. The percentage contribution of each item to total current assets varied year to year over study period.

Inventory of raw material was 35.63 percent in 1990-91. Again year 1991-92 the inventory has been decreased up to 26.38 percent and in 1992-93 it is decreased in 1992-93, 1993-94 and 1994-95 up to 20.78, 15.97, 15.02 respectively but from 1995-96 it is reached up to 16.32% and in the year 1996-97 there are alarming increase in the inventory and it reach it to 24.16 percent. The trend of inventory in compression of total current assets are again decrease and in the last year of our study period it is only 17.08 percent which is nearly 50 percent in compression of 1990-91 it shows that the Reliance industry has managed his inventory properly an other important item included in current assets is sundry debtors. The data's of shows that the collection period of sundry debtors in Reliance industry in quite satisfactory. Sundry debtors in compression of total assets are highest in the year 1991-92 with the total percent of 47.65 is the lowest level of in the years 1998-99 in 16.48 percent with in the ten year s of my study period the percentage of sundry debtors to total current assets in varying year to year but a trend shows that the percentages of sundry debtors seems to declining over the study period an other third important factor included in total current assets in Reliance industry in cash and bank balance. The percentage of cash & bank balance to total current assets is minimum in the year 1993-94 with the data of 2.67 percent and it is highest in the year of 1998-99 with 54.12 percent it shows that the liquid position of the Reliance industry is quite satisfactory but there is a another aspect that their is a mismanagement of

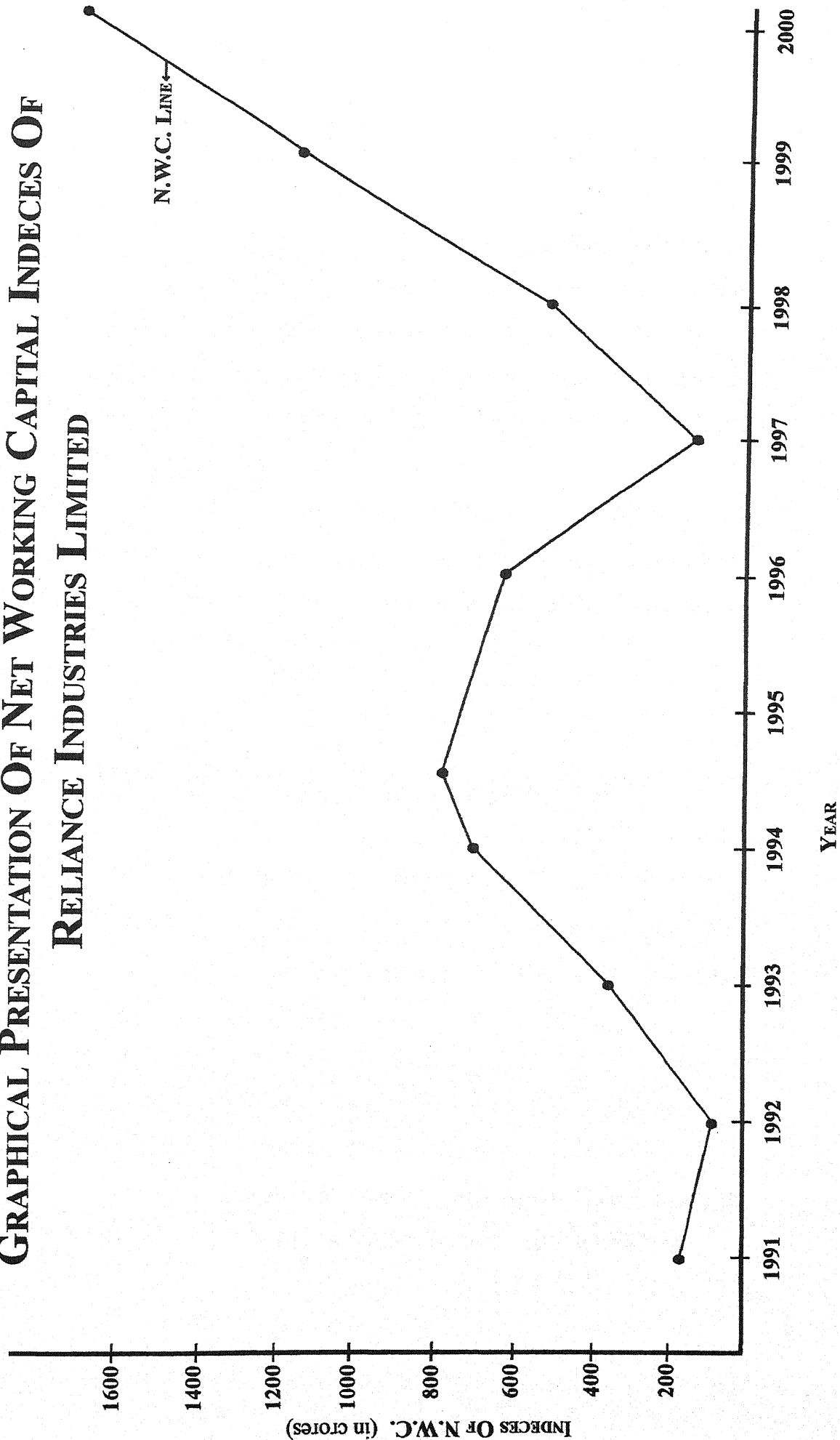
cash industry can earn more return of his cash & bank balance although high cash & bank balance percentage is a good indicator of liquidity. Last but not reach there is a four components included in the total current assets of Reliance industry of Misc. C. assets. It includes those assets which are in the position of cash or convertible in the cash with in a year the highest percentage of Misc. C. assets 53.45 percentage in 1999-2000 and it is lowest in the year 1998-99 with 13.85 percent and it is also varying over year to year under the study period. As a gist it is said that there is 'no window dressing in the current assets of Reliance industry. Company acquire more and more current assets over year to year under the study period. It reached nearly nine times with in ten years of my study period.

In the current liabilities of Reliance industries there are four components included i.e. loans and advances sundry creditors, provision for taxation and Misc. liabilities. The main current liabilities are sundry creditors, which is originate due to credit purchasing by the company. The percentage of sundry creditors to total current liabilities is highest with the percentage of 979.69 in the year 1997-98 and it is lowest in the year 1990-91 with 49.15 percent. The percentage of sundry creditors are varying year to year over the study period of ten years. Another components Land & advances are in decreasing trend up to 1997-98 from the 1990-91. The percentage of loans & advances to total current liabilities is highest in the year 1990-91 with 44.90 percent and it is only 1.56 percent and lowest in the year of 1997-98 it shows that Reliance industries depends on its own cash & bank balance in the year 1997-98 and 1998-99.

Provision for taxation made by the industry at the first time in 1996-97 and it is only 1.21 percent to total current liabilities the percentage of

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GRAPHICAL PRESENTATION OF NET WORKING CAPITAL INDECESES OF RELIANCE INDUSTRIES LIMITED



provision for taxation to total current liabilities is highest 1999-2000 with 3.68 percent.

Fourth and last components included in current liabilities of Reliance industry consolidated in the heading of Misc. Liabilities and provisions. The percentage of Misc. liabilities and provision to total current liabilities are varying over the study period. It is highest 25.50 percent in the year 1998-99 and lowest 5.95 percent in the year 1990-91. Indices of current liabilities increase 6 time over the study period.

Net working capital of Reliance industries Limited were highest in the year 1999-2000 with 538.15 crores, and it is lowest in the year 1991-92 with rupees 31.79 crores the index of net working capital of Reliance industries reached nearly 16 times which is a better indicator of liquidity and solvency as well.

3.4 WORKING CAPITAL TURNOVER RATIO:-

In order to study whether a business enterprise is over trading or under trading. The working capital turnover ratio is very useful. This ratio indicates a relationship between sales and working capital. The working capital turnover ratio is computed according to the following formula.

$$\text{Working capital turnover ratio} = \text{Sales} / \text{Working capital}$$

However, a high turnover of working capital shows the high efficiency at working capital as more activities are performed with a low

amount of working capital and so is a better sign of profitability. On the other hand, a high ratio may also be a result of inadequate working capital. A low working capital ratio. On the other hand may be the result of under trading or may indicate that more funds have been invested in the business concern. Therefore, a normal ratio of working capital turnover is beneficial for a concern. In this study I calculated the working capital turn over ratio of Reliance textile industry Ltd. are as follow and presented by a different table exhibit 3.2 and Exhibit 3.2 (A).

Exhibit 3.2: - Working Capital Turnover Ratio in Reliance Industry Ltd.

(Figure in crores)

Year	Net Sales	Working Capital	Ratio
1990-91	210.3	33.49	6.28
1991-92	230.17	31.79	7.24
1992-93	410.62	124.04	3.31
1993-94	534.51	237.52	2.25
1994-95	701.9	246.49	2.85
1995-96	778.63	208.28	3.74
1996-97	873.03	49.56	17.61
1997-98	1340.37	158.08	8.48
1998-99	1455.32	362.06	4.02
1999-00	2030.13	538.15	3.77

Working Capital = Current Assets - Current Liabilities

Working Capital turnover Ratio = Sales / working Capital

Source :- The Bombay Stock Exchange Official Directory

EXHIBIT :- 3.2 (A) SHOWS THE WORKING CAPITAL TURNOVER RATIO OF SELECTED TEXTILES INDUSTRIES

(Fig. in crores)

Year	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Net Sales	Working Capital	Ratio	Net Sales	Working Capital	Ratio	Net Sales	Working Capital	Ratio	Net Sales	Working Capital	Ratio	Net Sales	Working Capital	Ratio
1990-91	42.58	4.94	8.62	50.07	9.81	5.10	123.05	59.07	2.08	23.76	2.19	10.84	210.30	33.49	6.28
1991-92	46.87	8.19	5.72	56.25	9.82	5.72	147.25	18.19	8.09	24.12	1.84	13.10	230.17	31.79	7.24
1992-93	51.18	8.53	6.00	57.07	11.27	5.06	174.80	83.58	2.09	31.01	2.43	12.76	410.62	124.04	3.31
1993-94	58.14	12.25	4.74	53.69	12.71	4.22	220.63	52.78	4.18	51.95	3.32	15.64	534.51	237.52	2.25
1994-95	71.49	17.09	4.18	38.80	7.14	5.43	240.11	112.60	2.13	43.65	5.01	8.71	701.90	246.49	2.85
1995-96	89.18	9.49	9.39	60.39	11.55	5.22	320.54	107.72	2.97	39.07	3.18	12.28	778.63	208.28	3.74
1996-97	97.53	37.16	2.62	53.45	13.18	4.05	360.40	126.95	2.83	38.97	1.65	23.61	873.03	49.56	17.61
1997-98	119.29	21.45	5.56	72.52	11.79	6.15	350.13	90.33	3.87	38.18	1.20	31.81	1340.37	158.08	8.48
1998-99	128.21	35.78	3.58	75.67	13.30	5.68	433.99	74.33	5.83	38.44	-1.48	-	1455.32	362.06	4.02
1999-00	133.82	31.74	4.21	93.20	9.43	9.88	499.29	115.72	4.31	40.56	0.53	73.52	2030.13	538.15	3.77

The working capital turnover ratio = Net Sales / Working Capital

This ratio establishes a relationship between net sales and net working capital. Working capital means the capital available for the working of business after its fixed assets have been acquired. There are two concepts of working capital. Gross concept, and net concept. The net working capital can be positive or negative. When current assets exceed current liabilities, the net working capital became positive, when current liabilities exceed current assets the net working capital become negative. Working capital is the rule of finance that should be sufficient when compared to current liabilities to provide against the danger of value of current assets being reduced.

It has been observed that all the selected textile company for my research work have positive working capital ratio. The highest positive ratio is obtained by modipan ltd. in all the ten year of my study. This ratio is maximum at 76.52 in year 1999-2000 and minimum at 8.71 in year 1994-95. The working capital turnover ratio is lowest in case of grasim industry Ltd. in all ten year of my research. This ratio is maximum in 1991-92 at 8.09 and minimum in 1990-91 at 2.08. The range of ratio is 6.0. In case of Raymond Ltd. working capital turnover ratio is maximum at 9.39 in year 1995-96 and minimum at 2.62 in 1996-97. The range of ratio is 6.77. The working capital turnover ratio of century Enkya Ltd. is highest in year 1999-2000 at 9.88 and lowest in the year 1997-96 at 4.05. The range of the ratio 5.83. In the case of reliance industry Ltd. Working capital turnover ratio is maximum at 17.61 in year 1996-97 and minimum at 2.25 in year 1993-94. The range of ratio is 15.36.

Working capital turnover ratio indicates ability of generating sales per rupees of working capital. Working capital turnover ratio may be the result

of favorable turnover of inventories and receivables or may reflect an inadequacy of net working capital accompanied by low turnover of inventories and receivables.

The larger the net sales as compared to the net working capital the favorable the situation is likely to be if the resultant turnover or working capital has been made possible by the use of an excess amount of current credit.

The real danger lies in the possibility of decline in sales due to unforced circumstances such as cancellation of orders, strikes, depressions and computation. Inventories may be accumulated even though sales have substations decreased. In that case liabilities will increase and sufficient funds are not realized through sales to liquidate them.

The low working capital turnover ratio may be the out-come of an excess of net working capital combined with slow turnover of inventories and receivable a large cash or investment of working capital in the form of temporary investment. Thus, when interpreting the net working capital turnover the analyst should exercise considerable caution because the working capital turnover ratio is a composite of a number of relationship each one of which should be analyzed carefully to account for changes from year to year of between companies.

Working capital measured by an absolute difference between current assets and current liabilities, is the lifeblood, which flows through the veins and arteries of the structure of a firm. An analytical study of working capital is of paramount importance because of its close relationship with the day-to-day operations of the business. Inadequacy or mismanagement of working capital is the leading cause of unfavorable turnovers. Working capital ratio

indicates the firm ability of generating sales per rupee of working capital. The higher the working capital turnover ratio the more favorable it is for the firm sales constitute more of credit sales. An higher ratio may at times reflect in adequacy of net working capital but still a low turnover of net working capital combined with slow turnover of inventories and receivables. While interpreting the net working capital ratio one should exercise more care and caution, since this represents a composite of inter-relationship each one of which requires a closer security

3.4.1 LIQUIDITY ANALYSIS :-

Liquidity may be defined as the ability to realize value in money the real liquid assets. It has two dimensions:

- (a) The time required to convert the assets in to money and,
- (b) The certainty of the realizable price. ⁴

In a sound business, the source of finance should be supplemented by own cash generation. The quantum as conversion of current assets in to cash or in other words, near liquid assets may have to supplements by outside borrowings to make sufficient liquid funds available to meet current obligations. The current obligations will also include the repayment of borrowing. While defining technical insolvency occurs wherever a firm is unable to meet its cash obligation. ⁵

4- James C. Van Horne : Fundamentals of financial Management, Prentice Hall Inc. Englewood clifts, N.J. , 1971, P.29

5- James C. Van Horne : Financial Management and policy, (second Edition, 1973) Prentice Hall of India Pvt. Ltd. New Delhi, P. 382

Bahadur Maurao defines technical solvency that, "some accountants feel that the difference between current assets and current liabilities provides a better measure of this safety margin. A better method would be to measure in its term o net cash inflow as the difference is a positive quantity the firm enjoys a high degree of technical solvency. If it is a zero, The position is nicely balanced. Though may at times become precarious. If this is a negative quantity, there is an indication that the firm must take some special arrangements for cash inflows to meet its obligations" ⁶

Harry gross observed that " The liquidity of any business results from its ability to generate cash. The financially sound company is able to build up reserve of cash in excess of requirements for operations. This surplus of cash is then available for the financing of expansion and for payments of debts and dividends." ⁷

Generally, the term 'Liquidity' means conversion of assets in to cash during the normal course of business and to have regular uninterrupted flow of cash to meet out side current liabilities (Generally maturing with in a year) as and when due and payable and also the ensure money for day to day business operations. Hence, the flow of current assets should circulate with a such rapid speed that they are converted in to cash with in a year, so that timely payment may be made to out sides for interest, dividends, etc.

6- Bahadur Murao : " Management Accounting, " Meenakshi Prakashan, 1982 New Delhi, P.213.

7- Harry Gross: "Financing small and medium sized business".

Lawrence D. Sehall also stated that “liquidity ratio measure the firm’s ability to fulfill short term commitments out of its liquid assets.”⁸ The word liquidity was used by the financial accounting slandered board to “describe the amount of time that is expected to elapse until an assets is realized of otherwise converted in to cash or until a liability has to be paid.”⁹

The importance of adequate liquidity in the sense of ability of a firm to meet current/short-term obligations when they become due for payment can hardly be over stressed. In fact liquidity is a pre-requisite for the very survival of a firm. The short-term creditors of the firm are interest in the short-term solvency of liquidity of a firm.

But liquidity implies, from the viewpoint of utilization of the funds of the firm, that funds are idle or they can very little. A proper balance between the two contradictory requirements, i.e. liquidity are profitability is required for efficient financial management. The liquidity ratios measure the ability of a firm to meet its short-term obligations and reflect the short-term financial strength/solvency of a firm.

3.4.2 CURRENT RATIO:-

Current ratio is used to measure the liquidity position of the concern and thus it reflects the short-term solvency of the concern. It explained current ratio also known as working capital ratio, is

8- Lawrence D schall and crarles W haley : “ Introduction to financial.management”, Mc. Graw-hill book company, P.410

9. FASB: “Proposed statement of financial accounting concepts”, Reporting income, cash flows and financial position of business enterprises” (Stanford, conn. Nov. 16-1981) P.12

computed by dividing current assets by current liabilities. The current assets normally included cash, and those assets which can be converted in to cash with in a year and include marketable securities, accounts receivable and inventories. The current liabilities which as short term maturing obligations to be met as originally contemplated, with in a year, consist of trade creditors, bills payable, bank credit, provision for taxation, dividends payable and outstanding expenses.

The current ratio is a measure of firm's short-term solvency ¹⁰ .its ability to meet short-term obligations. This ratio indicates the availability of current assets in rupees for every one rupee of current liability. The higher the current ratio, the larger the amount of rupees available per rupee of current liability, The more the firm's ability to meet current obligations and greater the safety of funds of short-term creditors. ¹¹

The basic point underlying the competent meet its current obligations with a margin of safety after making allowance for a possible shrinkage in the value of current assets, such as inventories and receivables. Keeping in view the possibility of 50 percent shrinkage in the value of current assets. The rule of thumb about the current ratio has been set at 2:1, that is, the current assets of a business should be twice the amount of current liabilities

10. Pandey, I.M. "Financial Management", Vikas Publishing House Pvt. Ltd. New Delhi, 1986 Edition, P. 505

11 Khan, M.Y and Jain P.K. " Financial Management", Tata Magraw Hill Publishing Company Ltd. New Delhi, Sixth Edition P.101

in order to call the business as technically solvent.¹² The above mentioned rule of 2 to 1 however, can not by means be taken as a general guide to the desirableness or other wise of the current ratio of all types of business may be the reserve in the case of another. The above 2 to 1 rule suggested a liquidation theory of solvency.¹³

“ The significance of the current ratio is that it is not only a measure of solvency but is an index of the working capital available to the enterprise.”¹⁴ A good current ratio may mean a good umbrella for creditors against the rainy-day, out to the management it reflects bad financial or presence of idle assets or over- capitalization.

The formula used for calculating ‘current ratio’ can be expressed as mentioned here after:

$$\text{Current ratio} = \text{Total of current assets} / \text{Total of current liabilities}^{15}$$

-
- 12 The term technically solvent may be defined as the ability of a business to meet its current liabilities fully as and when they become due.
 13. Guthamann, H.G. and Dougall H.E. “ corporate Financial Policy” prentice Hall, (New Delhi) fourth edition P.61
 14. Yorston R.K. Smyth E.B. Brown and S.R. Rodger W.G., “Advanced accounting” (The law book co. of Australia Pvt. Ltd.) Third edition 1953, Volume - 3 P. 134
 15. Khan, A.A. , “Working capital Analysis” Printwell Publishers on behalf of rupa Books (P) Ltd., Tilak Nagar Jaipur, First Edition, 1990, P.20

Exhibit :- 3.3 SHOWING OF CURRENT RATIO OF RELIANCE
INDUSTRY LTD.

(Fig. in crores)

Year	Current Assets	Current Liabilities	Ratio
1990-91	116.49	82.99	1.403
1991-92	153.48	121.7	1.26
1992-93	251.7	127.66	1.97
1993-94	366.02	128.49	2.85
1994-95	441.21	194.73	2.27
1995-96	465.33	257.05	1.81
1996-97	449.32	399.76	1.12
1997-98	580.47	422.39	1.37
1998-99	904.9	542.84	1.67
1999-00	1067.45	529.3	2.02

Current Ratio = Current Assets/Current Liabilities

Source: - Bombay Stock Exchange Official Directory

The current ratio is measure of the industry's short-term solvency. It indicates the availability of current assets in rupees for every one rupee current liabilities. A ratio of greater than one wears that the industry has more current assets than current claims against liabilities an exhibit 3.3, Portrays the ratio of current assets to current liabilities of Reliance industries since 1990-1991 to 1999-2000. The current ratio of the industry was calculated 1.403 during 1990-1991, which came down, 0.14 in 1991-1992. It

was basically due to an increase of current assets over the current liabilities of the industry against last year. It improves the liquidity efficiency of the industry. During 1993-1994.

The current ratio of the industries grew up to 2.85 due to a remarkable improvement of cash and bank balances of current assets of the industry. During 1996-1997 to current ratio of industry came down in 1.12 but next year that is properly improve to improve.

It is observed from the exhibit 3.3 that the current ratio of the reliance industry continuously improve over the study period. Thus the trend of the ratio of current assets to current liabilities reveals. his liquidity and ability to pay its debt in short term of the industry. In other words, it indicated that the industry has more current assets than current claims against liabilities and exhibit and exhibit 3.3(A) are as follow: -

The current ratio of selected textiles companies as shown in Exhibit 3.3(A) disclose that it is lower than 2:1 which is the accepted norm for current ratio in case of Raymond Ltd. for all the ten years of my research period i.e. from 1991 to 2000 This ratio is also less than accepted norm i.e. 2:1 in all the ten years of my research period in case of Raymond Ltd. The current ratio of century Enka Ltd. is more than accepted norm of 2:1 in some year and some year in near 2:1.

The position of current ratio of Grasim industries Ltd is better because it is more than accepted norms of 2:1 from 1991 to 2000. In case of Modipan Ltd. the position of current ratio is not good in all the ten years of my research period.

Exhibit :- 3.3 (A) Shows the current ratio of Selected textiles Industries

(Fig. in crores)

Year	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELIANCE INDUSTRIES LTD.		
	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio
1990-91	22.15	17.21	1.29	22.95	13.14	1.75	84.52	25.45	3.32	13.57	11.38	1.19	116.49	82.99	1.40
1991-92	28.63	20.44	1.40	24.67	14.85	1.66	88.43	27.03	3.27	15.00	13.16	1.14	153.48	121.70	1.26
1992-93	37.43	28.90	1.29	23.33	12.06	1.93	120.99	37.41	3.23	16.88	14.45	1.17	251.70	127.66	1.97
1993-94	43.30	31.05	1.39	25.21	12.50	2.02	115.03	62.25	1.85	18.92	15.60	1.21	366.02	128.49	2.85
1994-95	67.13	50.04	1.34	24.42	17.28	1.41	179.58	66.98	2.68	21.81	16.80	1.30	441.21	194.73	2.27
1995-96	85.65	76.15	1.12	28.51	16.96	1.68	199.45	91.73	2.17	19.04	15.86	1.20	465.33	257.05	1.81
1996-97	97.98	60.82	1.61	26.01	12.83	2.03	191.04	84.98	2.25	16.40	14.75	1.11	449.32	399.76	1.12
1997-98	91.83	70.38	1.30	24.27	12.48	1.94	206.66	116.33	1.78	17.36	16.16	1.07	580.47	422.39	1.37
1998-99	93.93	58.15	1.61	24.07	10.77	2.23	200.62	126.29	1.59	16.98	18.46	0.92	904.90	542.84	1.67
1999-00	85.35	53.61	1.59	22.94	13.51	1.69	217.75	102.03	2.13	18.69	18.16	1.03	1067.45	529.30	2.02

Current Ratio = Current Assets/ Current Liabilities

The over-all study of exhibit 3.3(A) shows that lower current ratio indicate lower liquidity position of the company's. The current ratio much below the normal rate of 2:1 indicate that these companies may not be able to pay its future bills on time, particularly of conditions change causing a slowdown in cash collections.

These companies not using FIFO of average costing will have a lower current ratio after purchase prices have been decreasing than a company measuring inventories on a LIFO basis. This is expected to posses the barometric capacity to forewarn imminent problems. Deteriorating is an indicator of problems in the offing and warrants the effective management over inventory account receivables and cash. A low declining current ratio would indicate an inadequate margin of safety between the assets that presumably are or will be, available to liquidate claims, and obligations to be paid.

Although the norm for the current ratio is 2:1, it does not guarantee for success of a company. Similarly, a ratio excessively lower, higher or higher than the norm does not suggest failure of a company. what is implies is that the companies have failed or survived having any of the ratios. The norms of 2:1 has been commonly accepted as an indicator of normal health of a company and the ratio different from this norm symptomatic of some illness suggesting careful examination of each components of the ratio.

3.4.3 QUICK RATIO :-

Quick ratio establishes a relationship between quick or liquid assets and current liabilities. The quick ratio is found out by dividing the total of the quick assets by current liabilities.¹⁶ If it is a refinement of the current ratio and a second testing device for the working capital position, The term "Quick assets" means those current assets which are either in the form of cash or can be easily converted in to cash. For this purpose, receivables and easily marketable securities may be treated as quick assets. There are only one step behind the realization of cash in the business. The inventories must be sold before their proceeds can be used the payment of current liabilities; selling them involves the uncertain factors of marketability of raw materials and good-in-process in to finished goods.

The current ratio by itself is not a sufficient indicator of the weakness or soundness of the liquidity of the firm. It fails to serve as a realistic guide to the solvency of the concern. Hence, The current ratio is not sufficient index of the solvency of the concern. Some other rigorous test has to be applied and that is the use of quick ratio.

Quick ratio indicates the relation of "quick assets" and "quick liabilities" It is difficult to state what assets and liabilities may be regarded as "quick" much depends upon the managements attitude and convention. The term quick assets is widely used in America for liquid assets. Normally these assets which are cash like that is likely to be turned in to cash in a short period of time can be included in the category of quick assets. The

16. Kumar, "Analysis of financial statement or Indian industries", Kanishka Publishing House Delhi, first edition.1991 P.183.

quick liabilities would include the payments which are nearly maturing immediately.¹⁷

This ratio is known as liquid ratio, and it is calculated by dividing the liquid assets by the current liabilities. The liquid assets will include normally all current assets except closing stock and prepaid expenses. In calculating the ratio due margin should be given for the nature of the current assts and the current liabilities. For example a close analysis of the sundry debtors shows a possibility of bed debts, than provision should be made and dedicated from the amount of sundry debtors. In such a case, obviously, the net figure of sundry debtors will be include in the total amount of liquid assets. On the other hand, quick assets will include cash and bank balances; short-term marketable securities, debtors and receivables and prepaid expenses and inventory exclude. The exculation of inventory is basically due to it is not easily and readily convertible in to cash like other liquid assets. By the nature prepaid expenses are not available to pay current debts. It merely reduce the amount of cash required in one period because of payment in a prior period. The utility of the ratio is true test of going concern solvency of a business. In general sense, when the quick assts are equal to or exceed over the current liabilities, it is assume that the financial position of business concern is satisfactory. Again, it is a measure of the extent to which the liquid assts are available to meet the immediate liabilities of the concern. Overall, this indicates, the ability of the business to meet its commitments as they fall due for payments in a short-term period.

17. Metcalf, R.W. and Titard, P.L. : "Principles of accounting", Philodelphia W.B. Saunders, 1976, P.170.

Quick ratio of the Reliance industries Ltd. is being presented in Exhibit :-3.4 as given below:-

Exhibit :-3.4 SHOWING QUICK RATIO OF RELIANCE INDUSTRIES LTD.

(Fig. In crores)

Year	Liquid assets	Current Liabilities	Ratio
1990-91	75.34	82.99	0.9
1991-92	113	121.7	0.93
1992-93	199.39	127.66	1.56
1993-94	307.56	128.49	2.39
1994-95	374.96	194.73	1.92
1995-96	389.38	257.05	1.51
1996-97	340.78	399.76	0.85
1997-98	446.08	422.39	1.06
1998-99	764.04	542.84	1.4
1999-00	885.13	529.3	1.67

Liquid assts = Current Assets – Inventories

Quick Ratio = Liquid assets/Current liabilities

Source :- Bombay Stock Exchange Official Directory.

The general and recognized standard for judging the quick ratio of the business concern is that it is taken to be satisfactory while it is 1:1. In the Reliance industry the quick ratio is 0.90:1 in 1990-91 which slightly improved to 0.93:1 in 1991-92. Again increase the quick ratio of Reliance industry in 1992-93 and 1993-94. There after it was declined to 0.85 in

1996-97. This unsatisfactory position of quick ratio was basically due to the corporation was not started its production from 1996-97 the period was in corpora ting period of the industry. However the quick ratio of the industry was computed 1.67 in 1999-2000. Overall, the quick ratio of the industry was not satisfactory in the beginning period.

But again it was satisfy. In the other word. Since started in production, The industry has secured stronger financial position to meet its short-term liabilities and exhibit 3.4(A) are as follow.

The Exhibit 3.4(A) shows that quick ratio is below the normal standard of 1:1. In case of Raymond Ltd. The period of my research 1991 to 2000 may be startly 3 years low and after year are high in norms. The position of quick ratio is good in case of century Enka Ltd. In all ten years of research period because it is more than one from 1991 to 2000.

The quick ratio is also very good in case of Grasim Industries Ltd. In whole the study period because the quick ratio (liquid position) is always more than one. The liquid position of Modipan is also not good because quick ratio is below than 1 in all nine years and last year is norms. In the case of Reliance Industries Ltd. The interoperations has been already made in Exhibit 3.4. The quick ratio of century Enka Ltd. And Grasim Industries Ltd. Supports the good current ratio for overall period of my research. The high current ratio was backed by desirable very good quick ratio, similarly, The low current ratio of remaining other selected companies for this research work were not associated with desirable quick ratio. The main components of quick assets cash and receivables, increase with decrease in current liabilities. The borrowing of rest other companies depends upon holding of

(97)

Exhibit 3.4 (A) SHOWS THE QUICK RATIO OF SELECTED TEXTILE INDUSTRIES

(Fig. In Crores)

	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELANCE INDUSTRY LTD.		
Year	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio
1990-91	14.71	17.21	0.85	13.32	13.14	1.01	66.74	25.45	2.62	9.35	11.38	0.82	75.34	82.99	0.90
1991-92	19.98	20.44	0.98	13.76	14.85	0.93	69.68	27.03	2.57	10.28	13.16	0.78	113.00	121.70	0.93
1992-93	26.23	28.90	0.90	14.17	12.06	1.17	92.10	37.41	2.46	10.76	14.45	0.74	199.39	127.66	1.56
1993-94	31.36	31.05	1.01	14.71	12.50	1.18	82.84	62.25	1.33	12.49	15.60	0.80	307.56	128.49	2.39
1994-95	50.20	50.04	1.01	12.30	17.28	0.71	136.77	66.98	2.04	15.24	16.80	0.90	374.96	194.73	1.92
1995-96	62.20	76.15	0.82	18.27	16.96	1.08	141.40	91.73	1.54	10.82	15.86	0.68	389.38	257.05	1.51
1996-97	70.33	60.82	1.15	16.94	12.83	1.32	126.95	84.98	1.49	8.88	14.75	0.60	340.78	399.76	0.85
1997-98	63.89	70.38	0.91	16.60	12.48	1.33	145.75	116.33	1.25	9.52	16.16	0.58	446.08	422.39	1.06
1998-99	64.62	58.15	1.11	16.35	10.77	1.52	135.37	126.29	1.07	9.34	18.46	0.50	764.04	542.84	1.40
1999-00	53.66	53.61	1.00	13.61	13.51	1.00	153.39	102.03	1.50	18.69	18.16	1.02	885.13	529.30	1.67

Quick Ratio = Liquid Assets/Current Liabilities

[Liquid assets = C.A.- Inventories]

Source :- Bombay Stock Exchange official Directory & Annual Reports

cash, near cash, debtors and stocks. In order to find total borrowing power of an organization. It is necessary to look at each item separately since each has a liquidity value. These two companies cash and near cash are highest.

During periods of boom quick ratio is likely to be unfavorable because increased activity may lead to larger stocks and more debtors but less liquid resources. Conversely, during periods of slump the ratio may become favorable due to disposal of stock and realization of book debts.

This ratio is only a variation of current ratio and measures the ability of the company to meet its pressing obligations, unlike the current ratio which is essentially a quantitative concept the emphasis is on qualitative aspects in the calculation of this ratio-while this ratio no doubt provides a more stringent test of solvency, the financial analyst must consider this ratio the short term financial strength and solvency of the company.



CHAPTER - IV

Inventory Management

- 1- Introduction
- 2- Meaning of inventory
- 3- Objectives of inventory management
- 4- Need to hold inventory
- 5- Inventory control
- 6- Fixation of limits for inventory
- 7- Structure of inventory
- 8- Adequacy of inventory



4.1: INTRODUCTION:-

Inventory is an important factor of the total current assets in the business. In the textiles industry. The efficient control of inventory passed the most serious problem. Inventory constitutes the largest component or current assets in business enterprises. The turnover of working capital is much more support upon the inventory turnover. So inventory management is fit to be considered part to the business organizations. L.R. Howard to watch that “the proper management and control of inventory not only solves the acute problem of liquidity but also increase annual profits and causes substantial reduction in the working capital of concern.”^A Inventory is the chain between production and sale. Therefore the needs of inventory in adequate quantity for effective processing and in-transit handing. Since, it is extremely important and they are to be managed efficiency. It is always desirable that investment in this assets should be kept at the minimum possible level. D. Scholl Lawrence and W. Haley Charles rightly observe. “Managing the level of investment in inventory is like maintaining the level of water in the bath-tub with an open drain. The water is flowing our continuously. If water is let in too fast the tub is soon empty. If water is let in too fast the tub over flows. Link the water in the tub, the particular items inventories keep changing, but the level may stay the same. The basic financial problems are to determine the proper level of investment in inventories and to decide how much inventory must be acquired during each period of maintain that level.”^B

(A) L.R. Howard, “Working Capital- Its management and control (London: Mac Donald and Vens Ltd.,1971)

(B) Lawrence D. Schall and Charls W.Haley, “Introduction to financial management” (New York): Mc. Graw-Hill, Inc.1983) P. 500

4.2: MEANING OF INVENTORY:-

In a manufacturing unit usually about 20 to 30% of the total assets are in the form of inventory and any effort in stock control will bring major benefits for the enterprise.¹ Inventory can notes the value of raw materials, consume able, sparer, work in progress, finished goods and scrap in which a industry's funds have been invested. Inventory management is a science based art of the ensuring that enough inventory is held by an concern to meet both its external and internal demand commitments economically.²

As per accounting terminology, inventory means "the aggregate of these items of tangible property which (i) are held for sale in the ordinary courses of business (ii) are in the process of production for such sale and (iii) Are to be currently consumed in the production of goods or services to be available for sale."³ Thus, inventory includes the stock of raw materials, goods in process, finished goods and stores the spares. James H. Greene "An inventory refers to the movable articles of business which are eventually expected to go into the flow of trade."⁴

1. Ravi M. Kishore, "Financial management" published by Taxmann allied services (P) Ltd. New Delhi, 2001, P. 196.

2. Lawrence D. Schall and Charles W.Haley, "Introduction to financial management" (New York): Mc. Graw-Hill, Inc.1983) P. 500 .

3. Accounting research and terminology bullet in published by the American institute of certified public accountants, New York, 1961, P.28.

4. James H. Greene, "Production and inventory control systems and decisions" Published by D.D.Taropore Wale sons and Co. (P) Ltd.,Bombay 1983, P.203.

Inventory, as a current asset, differs from other current assets because any financial managers are not involved. Rather, all the functional areas, i.e. finance marketing, production and purchasing, are involved. The views concerning the appropriate level of inventory would differ among the different functional areas.⁵ The job of the financial manager is to reconcile the conflicting viewpoints of the various functional areas. Regarding the appropriate inventory levels in order to fulfil the overall objective of maximizing the owner's wealth. Thus, inventory management, like the management of other current assets should be related to the overall objective of the firm.

In financial parlance, Inventory is defined as, "The sum of the value of raw materials, fuels and lubricant, spare parts, maintenance, consumables, semi-processed material and finished goods stock at any given point of time."⁶ S.E.Bolten states, "The term 'inventory' refers to the stockpile of the product a firm is offering for sale and the components that makeup the product."⁷ The proposed classification of inventory differs from the one as suggested by others and adopted by the director of commercial audit in his annual audit report on the accounts of the government companies.⁸ The director of commercial audit classifies the

5. Gitman, L.J. "Principles of managerial Finance"(New York) Harper and Row, 1976, P.P.216-19.

6. P. Gopal Krishnan and M.Sudarshan, "Material management-an integrated approach":prentice hall of India (P) Ltd. 1971, P.P.92-93

7. S.E. Bolten, "Managerial Finance" (Boston: Houghton Mifflin Co., 1976, P.28.

8. Ranjan N. "Materials management in public undertakings" Lok Udyog Bureau of public enterprises, New Delhi, vol. III, No.6, Sept. 1969,P.10.

total inventory of the public enterprises into the following three classes;(i) Raw materials, stores and spares, loose tools, jigs and fixtures. (ii) Stock in process and (iii) finished goods.⁹

4.3: OBJECTIVES OF INVENTORY MANAGEMENT:-

Inventory is an ideal resource of a concern. Inventory management should strike a balance between excess inventory and inadequate inventory.

The objective of inventory management is to create a balance between the desire to minimize capital investment on the one hand, and the avoid extension of the delivery period on the other. According to John F. Magee "Although it is essential to have necessary inventory."¹⁰ Excessive inventory is an ideal resource of a concern. Therefore, inventory management should strike a balance between excess inventory and adequate inventory. These two conflicting objectives of inventory management can also be expressed in terms of cost and benefits associated with inventory. That the inventory to should minimize investment in inventory implies that maintaining an inventory involves costs so that the smaller the inventory, the lower the cost of the industry. However inventories also provide benefits to the extent that they facilitate smooth functioning of the industry. The larger the inventory, the better it

9. Controller and auditor general of India, New Delhi, audit report(commercial), 1967, P.10.

10. John F. Magee, "Guide to inventory policy" functions let sizes, Harward Rusiness-Review, 34(January,February,1956,P.P. 49-60).

is from this view point. Obviously the industry should aim at a level of inventory which will reconcile these conflicting elements. This means that an optimum level of inventory should be determined on the basis of the trade off between costs and benefits associated with the levels of inventory. Further the efficient management of inventories enables the industry to achieve better working results and reduction in working capital.

4.4: NEED TO HOLD INVENTORY:-

The question of managing inventories arises when the company holds inventories. Maintaining inventories involves tying up of the company's funds and storage and holding costs. If it is expensive to maintain inventories. Why do concerns hold inventories. There are three general motives for holding inventories.¹¹

- (a) Precautionary motive
- (b) Transaction motive
- (c) Speculative motive

4.4.1: THE PRECAUTIONARY MOTIVE :-

Which necessitates holding of inventories to guard against the risk of unpredictable changes in demand and supply forces and other factors.

11. Starr. Martin K. and David W. Miller, "Inventory control theory and practice" Englewood Cliffs, N.J. Prentice Hall, 1962, P.17.

4.4.2: THE TRANSACTION MOTIVE:-

Which emphasizes the need to maintain inventories to facilitate smooth production and sales operations.

4.4.3: THE SPECULATIVE MOTIVE:-

Which influences the decision to increase or reduce inventory levels to take advantage of price fluctuations.

It should maintain adequate stock of materials for a continuous supply to the factory for an uninterrupted production. It is not possible for a company to produce raw materials whenever they are needed. A time lag exists between demand for materials and its supply. Also there exists uncertainty in procuring raw material in time at many occasions.

The work process or semi finished goods inventory builds up because of the production cycle. Production cycle is the time span between the introduction of raw materials into production and emergence of finished goods at the completion of production cycle.

The stock of finished goods has to be retained like stock of raw materials and work in process; It is usually necessary to maintain stock of finished goods also, unless there is a very big demand for products which cannot be met by production normally. And in that case, as soon as the goods are produced, they will be lifted by the customers and there may be almost no stock of finished good.

4.5: INVENTORY CONTROL:-

Inventory control is concerned with the acquisition, storage, handling and use of inventories so as to ensure the availability of inventory whenever needed, provide adequate cushion for contingencies and derive maximum economy and minimize wastage and losses. The efficiency of inventory control affects the flexibility to the concern. Inefficient procedures may result in an unbalanced inventory some items out of stock, others overstock, necessitating excessive investments. These inefficiencies will ultimately have an adverse effect upon profits.

Harry Gross suggested several techniques, which may be used to control inventories of which the following are the most common.

- (a) The low point techniques where standards are established for recording when these low points are reached.
- (b) A rosary storage procedure for keeping a reserve supply to be used when current needs are exhausted.
- (c) Planning based on continual review based on this method; recording is accomplished at the same time as this regular analysis is made.

Proper control of inventories not only solves the acute problem of liquidity, but it also increase the profitability of the business and causes substantial reduction in the working capital of an undertaking. Control in inventories is exercised by introduction different measures of inventory control, such as, ABC analysis, by fixation of norms for inventory holdings, by determining recorder points and through a close watch on the movement of inventories.

4.5.1.A: ABC ANALYSIS OF INVENTORY:-

The first step in the process of inventory control is classification of different items in the inventories to determine the type and degree of control required for each, generally a textile industry has a number of items in its inventory.

Sometimes some items account for a large portion of total consumption value of all the items. Prior inventory management requires that items of higher value should attract greater attention of the management ABC analysis, based on this empirical reality, advocates in essence a selective approach to inventory control which calls for a greater concentration of effort on inventory items accounting for the usage value. "ABC classification of inventories is based on the concept that the items of greater value but lesser in number should be watched more closely and look after by the members of the top management team, whereas the items of lower value, but large in number may not call for control, and be in the charge of a junior executive. The items of the middle category are moderately controlled by the middle level managers."¹² Herbert, J. Richmond observes, "The ABC plan concentrates on important items and is also known as control by importance and exception."¹³

12. N.K. Agarwal, "Management of working capital" Sterling Published (P) Ltd. New Delhi, 1983, P.68.

13. Herbert J. Richmond, "Effective Inventory Management Fact or fiction" Financial executive March 1969, P.P. 74-78.

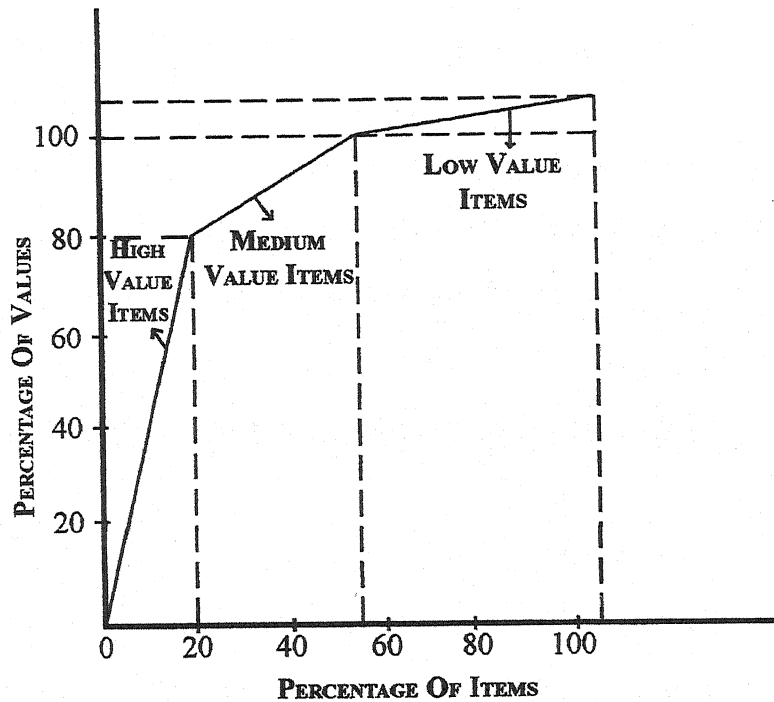
4.5.1B: VED ANALYSIS:-

This type of analysis divides items into three categories in the descending order of their criticality. Here V stands for vital items and their stock analysis requires more attention, because out of stock situation will result in stoppage of production. Thus V items must be stored adequately to ensure smooth operation of the plant. E means essential items. Such items are considered essential for efficient running but without these items the system would not fail. Care must be taken to see that they are always in stock. D stands for desirable item, which doesn't affect the production immediately but availability of such items will lead to more efficiency and less fatigue. VED analysis can be very useful to capital intensive process industries. As it analyses items based on their criticality, it can be used for those special raw materials which are different to procure.

4.5.1C: PARETO ANALYSIS:-

In working capital management, Pareto analysis or 80:20 rule is most important for management of inventory and debtors. According to the rule, 20% of the stocks will represent 80% of the turnover value. Accordingly it is to this 20% that the effect of stock controls applied to ensure economic stocking policies. Meanwhile, the 80% that represents only 20% of the turnover should be subject to scouting to verify its value to the organization. On a similar principal, debtors may be revised while always remembering they are customers.

The ABC analysis is an outgrowth of Pareto Analysis only. This can be explained with the help of following graph:



PETRO ANALYSIS (80:20 DISTRIBUTION)

4.5.1D: FNSD ANALYSIS:-

FNSD Analysis divides the items into four categories in the descending order of their usage rate. F stands for fast moving items and such items are exhausted over a period of a year or so. S indicates slow moving items; existing stock of which would last for two years or more at the current rate of usage but it is still expected to be used up. D stands for dead stock and for its existing stock no further demand can be foreseen. Stocks of fast moving items must be observed constantly and replenishment orders be placed in time to avoid stock out situation.

Slow moving stock must be reviewed very carefully before any replenishment order is placed. The order levels and quantities for such items should be on the basis of a new estimate of future demand, to minimize the risks of a surplus stock being left when a slow moving item becomes obsolescent or dead. Dead stock figures in the inventory represent money spent that cannot be realized but it occupies useful space. Hence, once such items are identified, efforts must be made to find all alternative uses for it. Otherwise, it must be disposed off.

4.5.1E: JUST IN TIME INVENTORY MANAGEMENT:-

The major emphasis of just in time philosophy is inventory management. A widely used analogy is that the inventory of water in a river. For as long as the level is high, the rocks and other obstacles remain hidden, but as soon as the level drops, the problems surface and must be attacked directly. It begins by identifying problems and then forcing the firm to tackle them. The main tactic used to reveal such problems in inventory reduction. The major focus is upon the idea of producing in response to need rather than as a consequence of plans and forecasts. Instead of pushing inventory into the system in order to make products they turned the process round and used the pull from the market place or the next operation as a way of making the system more directly responsive and eliminating unnecessary waste due to over production and so on. It attempts to minimize inventories through small incremental reductions rather than prescribe particular techniques or methodologies.

4.5.2: ORDERING SYSTEM OF INVENTORIES:-

Inventory problem relates to the determination of the quantity in which inventory will be required. There are many formula and models to solve this problem. All inventory models, no matter how complex, address themselves to the problem of timing and magnitude of replenishment.¹⁴ Decision of ordering is very much affected by ordering and carrying cost. The expenses which are incurred by the firm to acquire inventories are known as ordering costs. There are three important systems of ordering materials. They are-

- (i) Fixed order quantity system or economic order quantity (EOQ) system
- (ii) Fixed period order system
- (iii) Single order and scheduled part deliveries systems

4.5.2.1: ECONOMIC ORDER QUANTITY SYSTEM:-

The economic order quantity is used to minimize the annual total costs for ordering and carrying the inventory. There are three factors, which affect the economic size of the order to be placed, viz (a) usage of the materials during the given period; (b) ordering cost; and (c) carrying cost of inventory. The size of inventory strikes a balance between the ordering costs and carrying costs and suggests the optimal size of the order to be placed.

14. Harvey M. Wonger, "Principles of operating resource with applications to managerial decisions. "Englewood oirss, N.J. Prentice Hall. Ina. 1969 P.P. 786-89.

The economic order quantity is that inventory level, which minimizes the total of ordering and inventory, costs.

ORDERING COSTS:-

The costs of ordering inventory include of the following.

It includes use of stationary, postage, telephone and other clerical cost. In fact all the expenses of the purchase department will be directly affected by the number of orders placed during a certain period. The main activities of purchase department, which, incur the ordering cost, are requisitioning, purchasing, ordering transporting, receiving, inspection and storing.

The ordering costs increase in proportion to the number of order placed. The clerical and staff costs, however, do not have a very in proportion to the number of orders placed and one view is that so long as they are committed costs. They need not be reckoned in computing ordering cost. Alternatively, it may be argued that as the number of orders increase. The clerical and staff costs tend to increase. If the number of orders are drastically reduced, the clerical and staff force released now can be used in order departments. Thus these costs may be included in the ordering costs. It is more appropriate to include clerical and staff costs on a pro rata basis.

CARRYING COSTS:-

The carrying costs of inventory include the following:

(i) Storage costs, i.e. tax depreciation, insurance, maintenance of the

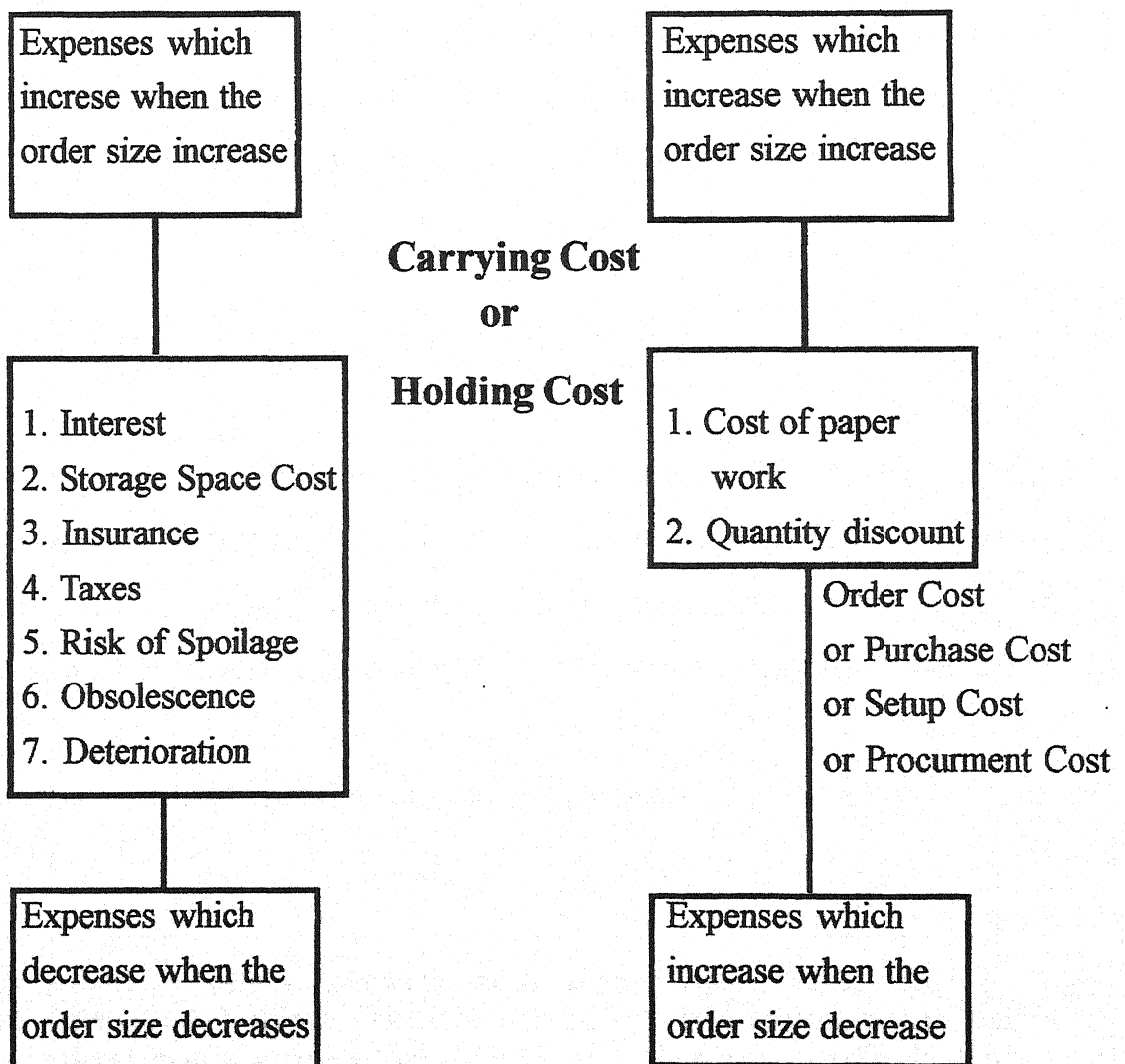
building utilities and janitorial services.

(ii) Insurance of inventory against fire and theft.

(iii) Determination of inventory because of pilferage, fire, technical obsolescence, style obsolescence and price decline.

(iv) Serving cost, such as labor for handling inventory, clerical and accounting cost incurred in recording and providing special facilities such as fencing, lines rocks etc.

Carrying cost or holding cost are explained with the help of following draw graph:



CARRYING COST OR HOLDING COST DIAGRAM :

Now the EOQ may be calculated by the following formula:

$$EOQ = \sqrt{2AO/I}$$

Where:

EOQ= Stands for Economic order quantity.

A= Annual consumption (Annual requirements of an item in terms of unit)

O= Cost of placing an order in rupees.

I= Inventory carrying charges for one unit for one year

According to Robert N. Antony,¹⁵ the techniques of EOQ as an example of an old technique that has been made powerful by the addition of better rules for determining the relevant costs and for estimating the rates at which inventory will be used up. For the linear programming type of model that was first used for what is known as the transportation problem is also considered to determining the EOQ model.

4.5.2.2: PERIODIC RECORDING SYSTEM:-

It known as replacement or fixed order size review system. In this method the quantity is reviewed periodically and order is placed for a quantity sufficient to replenish inventory. It is determined on the basis of requirement of materials during review period and lean time plus safety stock. The review period is decided keeping in view the terms of the suppliers regarding minimum quantity etc. and the consumption rate of the firm.¹⁶

15. Robert N. Anthony, "Management Accounting" op. cit. P.683-689.

16. Raymond A. Hoffman, "Inventories, a guide to their control, costing and effects upon income and taxes, Renald press Company, New York, 1962, P.P.22-37.

4.5.2.3: SINGLE ORDER SYSTEM:-

In this system a single order covers a firm's requirement of materials for a longer period, say for six months or one year, with the instruction to supply materials in a certain number of installments at a stipulated time or at specifies intervals. This system insures in incur high ordering and carrying costs, nor does it have to make heavy investment in inventories. It also involves inconvenience of arranging space for storage. Infect the concern enjoys the economics of scale from bulk order.

4.6: FIXATION OF LIMITS OF INVENTORIES:-

The limit for inventories could be set by the materials department. The materials department sets monetary limits for investment in inventories. The material department then has to allocate this investment to the various items and ensure the smooth operation of the company. It will be worthwhile if limits or inventories are set up by "Management by Objectives" concept. This concept expects the top management to set the inventory limit in consolation with the material department.

Carrying too little of the inventories are mentioned a industry has to encounter frequent stock outs and incur heavy ordering costs. Very large inventories subject the industry to heavy inventory carrying costs in addition to unnecessary tie-up of the working capital. Therefore it is necessary for a industry to maintain inventories at an optimum level where inventory costs are minimum and at the same time inventory benefits are maximum. This make the determination of the various stock level of inventories very necessary.

4.6.1: DETERMINATION OF MINIMUM LEVEL OF INVENTORIES:-

A textile industry would be required to maintain stock of goods were available regularly on demand. However it is so. The industry intending to have stock requires some time to process the order. Time is also required by the supplier to execute the order. This period is called 'lead time'.¹⁷ To continue production during this period, it is essential to keep some inventories.

Minimum stock level = Recorder level – (Normal usages per
period x Average Delivery Time)

'OR'

=RL – (NU x ADT)

4.6.2: DETERMINATION OF MAXIMUM LEVEL OF INVENTORIES:-

Study group on bank credit observed that, "It is not the function of industry to carry stock in excess of what is required for current operations, as other wise industry will be taking over the functions of the traders".¹⁸ In practice in spite of the consciousness of this fact, some of the industry carry inventory much than their current requirements. According to James Van Harne, "Inventory should be

17. Lead time has been defined as the interval between the placing of an order (with a supplier) and the time at which the goods are available to meet the consumer needs. See Duehan, Joseph and Keenish Gery Ernest, "Scientific Inventory Management" (New Delhi; prentice hall of India, 1966) P.335.

18. Report of study group, Summary, Reserve Bank Of India Bulletin (Nov.1969) P.P.1972-78.

allowed to increase till the resulting saving exceed the total cost of holding the added inventory. The balance finally reached depends upon the estimates to actual saving, the cost of carrying additional inventory and the efficiency of inventory control.¹⁹ Supply of goods also influences inventory level.²⁰ Generally, it is found that seasonal goods are purchased and stored in a large quantity when these are available in abundance and at a cheaper rate. However, in a given situation, inventories may not be accumulated beyond a certain limit, even if industries are willing to invest more funds in inventories. This is due to various constraints, such as, storage space, self life of the commodity and storage costs.

Maximum stock level = Reorder level + Reordering quantity – Minimum consumption during the period required to obtain delivery

$$= RL + RQ - MnC$$

4.6.3: REVIEW OF INVENTORY LEVELS:-

For efficient management of inventories, it is necessary to review periodically the level of inventory and to effect changes in the light of review.

4.6.4: INVENTORY REPORT:-

Inventory report plays an important role in the control of inventories. For effective control of inventory, the

19. James C. van Harn, "Financial Management and Policy" (New Delhi, Prentice Hall of India) (P) Ltd. 1993, P.416.

20. CWJ Granger and M. Matanaka, Special Analysis of Economic Times Series (Princeton University press, 1964) P.277.

management should be kept posted up with the latest stock position of different items.

This is usually done by making periodic inventory report. These reports should contain all information necessary for managerial action. Wherever necessary on the basis of these report management make take corrective measures. The regular reporting reduces the chances of lapse in the administration of inventories.

4.6.5: DETERMINATION OF SAFETY STOCK:-

It is difficult to predict usage and the lead time accurately. The demand for material may fluctuate from day to day or from week to week. Similarly the actual delivery time may be different from the normal lead-time. If the actual usage increase or the delivery of inventory is delayed, the industry can face a problem of stock out. The stock out can prove to be costly for the industry. Therefore, in order to guard against the stock out, the industry may maintain a safety stock. Some minimum or buffer inventory a caution against expected increase usage and/or delay in delivery time.

Formulae for calculation of various stock levels:-

1. Average stock level = $(\text{maximum level} + \text{minimum level})/2$
 $= \text{minimum level} + 1/2 \text{ recorder quantity}$
2. Reorder level = Maximum Reorder period x Maximum usages
 $= \text{Safety stock} + \text{lead time consumption}$
3. Danger level = Minimum Consumption x Emergency Delivery
time
4. Safety stock = $(\text{Annual Demand}/365) \times (\text{maximum lead time} - \text{Normal / average lead time})$

5. Economic order quantity=

$$\sqrt{(2 \times \text{Annual Consumption} \times \text{Buying Cost per order}) / (\text{Cost per unit} \times \text{Storage and carrying cost rate})}$$

The level of inventory of a company may be an asset by the inventory to current assets ratio, which majors how much has been tied up in inventory. We shows the inventory to current assets ratio of Reliance Industries Ltd. by the following exhibit 4.1 and ascertained that how much portion of current assets covered by the inventory.

Exhibit :- 4.1: Shows the inventory to current assets ratio of Reliance Industries Ltd.

(figure in crores)

Year	Inventory	Current assets	Ratio in %
1990-1991	41.15	116.49	35.32
1991-1992	40.49	153.48	26.38
1992-1993	52.31	251.70	20.78
1993-1994	58.46	366.02	15.97
1994-1995	66.25	441.21	15.02
1995-1996	75.96	465.33	16.32
1996-1997	108.53	449.32	24.15
1997-1998	134.39	580.47	23.15
1998-1999	140.86	904.90	15.57
1999-2000	182.32	1067.45	17.08

Inventory to current assets ratio= Inventory / Current assets x 100

Source:- Annual accounts and reports.

The above exhibit shows that the portion of inventory including in current assets. The higher ratio shows that the major cash or current assets are used for hold inventory and the remaining part of current assets are left for cash, bank balance, B/R and prepaid expanses etc. for the

proper management of current assets there should be proper percentage of inventory according to size or process mechanism and other considerable factors. There are no standard percentage or ratio for inventory to current assets so it is varied from company to company. In Reliance Textile industries in the year of 1990-1991 the inventory to current assets ratio is 35.32% where it is decrease in 1991-92 by 8.94% it shows that in the year 1991-92 there are more liquid resource available to company than the year 1990-91. Further in the year 1992-93 there are again decreasing trend reveal in the inventory to current assets ratio and it is decrease by 5.6% in the year 1992-93 in comparison of 1992-93. Again 1993-94 in inventories to current assets ratio 15.97% and in the year 1995-1996 it become lowest of all my study period from 1990 to 2000 at the percentage of 15.02. There are slightly more fluctuation shown in the coming year and in the year 1995-96, 1996-97 and 1997-98 it becomes higher than the year of 1994-95. In the overall conclusion that the size of inventory depends of the size of business concern and we invest our money to maintain the proper inventory for smooth running for business care fully. So there are proper utilization of cash or working capital.

Our study shows inventory to current assets ratio of selected textile companies in exhibit 4.1 (A). During the period 1990-2002 under study Raymond Ltd. held stock 33.58% in comparison to current assets in the year 1990-91 which shows that near about 1/3 portion held as a inventory in the year 1999-2000 the ratio of inventory to current assets is 37.12 which shows that inventory is a key components of current assets while Century Enka Ltd. 41.96% in 1990-91 and it is highest in 1994-95 with 49.63% which shows that 50% current assets are due to inventory in 1999-2000 this ratio is declined by 8.96% in comparison of 1994-95. In Grasim Industry Ltd. it is only 21.03% in 1990-91 and highest 33.54%

Exhibit:- 4.1(A): Shows the inventory to current assets ratio of selected textile industries :-

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Inventory	Current Assets	Ratio %	Inventory	Current Assets	Ratio %	Inventory	Current Assets	Ratio %	Inventory	Current Assets	Ratio %	Inventory	Current Assets	Ratio
1990-1991	7.44	22.15	33.58	9.63	22.95	41.96	17.78	84.52	21.03	4.22	13.67	31.09	41.15	116.49	35.32
1991-1992	8.65	28.63	30.21	10.91	24.67	44.22	18.75	88.43	21.2	4.72	15.00	31.46	40.49	153.48	26.38
1992-1993	11.20	37.43	29.92	9.16	23.33	39.26	28.89	120.99	23.87	6.12	16.88	36.25	52.31	251.7	20.78
1993-1994	11.94	43.3	27.57	10.50	25.21	41.65	32.19	115.03	27.98	6.43	18.92	33.98	58.46	386.02	15.97
1994-1995	16.93	67.13	25.21	12.12	24.42	49.63	42.81	179.58	23.83	6.57	21.81	30.12	66.25	441.21	15.02
1995-1996	23.44	85.64	27.37	10.24	28.51	35.91	58.05	199.45	29.1	8.22	19.04	43.17	75.96	465.33	16.32
1996-1997	27.65	97.98	28.22	9.07	26.01	34.87	64.09	191.04	33.54	7.52	16.40	45.85	108.53	449.32	24.15
1997-1998	27.94	91.83	30.42	7.67	24.27	31.6	60.91	206.86	29.47	7.84	17.36	45.16	134.39	580.47	23.15
1998-1999	29.31	93.93	31.2	7.72	24.07	32.07	65.25	200.62	32.52	7.64	16.98	44.99	140.86	904.9	15.57
1999-2000	31.69	85.35	37.12	9.33	22.94	40.67	64.36	217.75	29.55		18.69	6.34	182.32	1067.45	17.08

Inventory to current assets ratio = (Inventory / Current Assets) x 100

source:- Bombay Stock Exchange Official Directory

in 1996-97. In Modipan Ltd. this ratio is 31.09% while in Reliance Industry Ltd. it is 35.2% in 1990-91 it is highest with the percentage of 45.85 in Modipan Ltd. during 1996-97 while in Reliance Industry it is quite decrease during my study period it is lowest with the 50.02% during 1994-95 and slightly increase in 1999-2000 by 2.06%. After study the overall performance regarding inventory to current assets ratio it is clearly observe that there is a minimum level of inventory included in the current assets Reliance Industry in comparison to other textile companies. So it is clear that Reliance Industry has more liquid assets for their working capital.

4.7: STRUCTURE OF INVENTORY:-

A manufacturing company typically has four types of inventory accounts, raw materials, goods in process and finished goods and stores and spares. While studying the structure of inventory, it is worthwhile to discuss the various methods implemented by the unit under the study for the valuation of its component of inventory varies from industry to industry. However a proper level has to be maintained among all these components to exercise an effective control over inventories. "All efforts of the management to control inventories should aim at maintaining various components of inventory at economic level and in proper proportion."²¹

The structure of inventory can be analyzed in two possible ways. Firstly, the shares of each component of inventory may be related to

21. Agarwal N. K. "Management of working capital" Sterling publishers (P) Ltd., New Delhi, P.74.

“aggregate inventory”. Secondly, appropriate indicators about the adequacy of each type of inventory may developed and applied to the actual position obtained in the unit under the study. The results so obtained may be compared to the guide-posts set by the company. Thus, the first technique will show the point or segment where the inventory concentrated most, while the second technique with however, straight for wordily directly as to when and where the overstocking and made its in reads.

4.8: ADEQUACY OF INVENTORY:-

It has been observed that the rise in ‘output’ and ‘sales’ has positively contributed to the growth of inventory in Reliance Industry. Further, analysis should be done to ascertain weather the size of inventory maintained by the unit had been adequate, excessive or short in relation to its inventory requirements. The study group on bank credit observed that, “It was not the function of industry to carry stock in excess of what is required for current operations.”²²

According to James C. Van Harne, “Inventories should be allowed to increase till the resulting saving exceed the total cost of holding the added inventory.”²³

It is difficult to lay down a single standard to assets, in prices, the or otherwise of inventory, there are certain ratio tests which provide

22. Reserve Bank of India Bulletin (publisher by Reserve Bank of India, Bombay) November, 1969, P.1972-78.

23. James C. Van Harne, “Financial Management and Policy” New Delhi, Prentice Hall of India (P) Ltd. 1983, P.482.

sufficient insight into the extent of overstocking of under stocking. Paresh Nath Chattopadhyay is of the viewpoint, "A common determinant is the value of the inventory expressed into month's cost or value of production. For determining the adequacy of inventory in concerns, this ratio test has been frequently applied both by external analysis and governmental agencies."²⁴ Another tried method of assessing the inventory adequacy is to strike the ratio between the capital lacked up in inventory and sales turnover.²⁵ In view of these criteria, the analysis of adequacy inventory may be confined to the study.

4.8.1: INVENTORY TURN OVER RATIO:-

Inventory turnover ratio is also known as stock turnover ratio. It establishes a relationship between goods sold and the inventory level. "It is one method of reviewing performance and controlling inventories periodically to check the inventory turnover of each type of raw materials supply and finished goods."²⁶

Turnover of inventory directly affected the profitability of a industry.

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24. (i) Bureau of public enterprises, Annual Reports on the working of Industrial and commercial undertaking 5th of the Central Govt. for the year 1967-78, P.116
 (ii) Paresnath, "Interfirm Comparisons, Scop and application in public enterprises" Northern Indian regional council of the ICWA, New Delhi, Sept. 1969 P.23.
25. Bhandri, M.C. "Budgeting and Materials Management" Commerce Bombay, Vol. 116, No.2981, June 22 1968, P.15.
26. R. Derbin Allon and Bierman Harold Jr., "Managerial Accounting An Introduction" 3rd edition, (Philadelphia, W.B. Saunders Company) 1975, P.155

“Ordinarily the higher the rate of inventory turnover, The larger the amount of profit, the smaller the amount of working capital tied up in inventory, and the more current the stock of merchandise.”²⁷ Each turnover adds to the volume of profit. A higher turnover also indicated that the concern has conducted more business with proportionately less amount of inventory, which results in saving of inventory costs. Therefore, management should speed up the turnover of inventories by controlling their volume to the extent possible.

On the other hand, “inventory turnover ratio acts as an indicator of the liquidity of the inventory.”²⁸ In other words this ratio helps in determining the liquidity of a industry in a much as its give the rate at which inventories are converted into sales rather than in to cash. A low ratio suggests poor inventory management, i.e. possible a situation of seasonal stocking and over buying. Therefore, a high inventory turnover ratio is always desirable in normal conditions. This view was supported by Durbin and Harold when they remarked that, “A higher turnover is better than a lower turnover.”²⁹ As observed by Eugene M. Lerner, “Investigation may show that the concert’s stock of finished goods contains a number of absolute items; it may reveal a break down in the production process so that goods may no longer flow smoothly through plant, or it may bring to light a decision made by this production

27. H. Kreps Cliften Jr. and Rechard F. Wacht, “Financial Administration” Housdale Illinois, 1975,P.45.

28. James C. Van Harne, “Financial Management and policy” (New Delhi Prentice Hall of India) (P) Ltd. 1983, P.37.

29. R. Drebin Allon and Bicrman Harold Jr. “Managerial accounting” An introduction 3rd edition (Philadelphi A: W.I.: B Sounders Company, 1975) P.155.

department to carry more raw material inventories to permit longer and more efficient production.”³⁰

Inventory is the one of the important item of the working capital of business it forms a major portion of the current assets to evaluate working capital it is necessary to analysis the efficiency the inventory management by its turnover ratio. To show the inventory turnover ratio of various selected textile companies. We use the following exhibit 4.2.

This ratio is cost of goods sold divided by the average inventory held during the year. Cost of goods sold is taken as the numerator because inventories are normally valued at cost. The average inventory is obtained by having the sum of beginning and ending inventories. Inventory is called to be the graveyard of a business. It has a direct relation with profits. If the stocks are accumulated and sales fall, business is likely to suffer losses. On the other hand, sufficient stock should be maintained to meet the sales requirements. This ratio helps to as certain the number of times the stock is turned over during a specified period which can be used to estimate the inventory requirements at various points of time.

The inventory turnover ratio of selected textile industries is exhibit 4.2 Revel that it was highest case of Reliance Industries Ltd. in last seven years of my research period. The maximum figure of this ratio is 8.44 in 1999-2000 and minimum is 3.48 in the year 1990-1991. The range of ratio is 4.96. This ratio is the second highest in case of Century Enka Ltd. in my research period of selected textile industries. This ratio is

30. Eugene M. Lerner, “Managerial Finance” A system Approach, (New York : HGR Court Brace Jovanavich. Inc. 1971) P.61.

(127)

Exhibit:- 4.2: Shows the inventory turn over ratio of selected textile industries :-

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Inventory	cost of sale	Ratio	Inventory	Cost of sale	Ratio	Inventory	Cost of sale	Ratio	Inventory	Cost of sale	Ratio	Inventory	cost of sale	Ratio
1990-1991	7.44	30.46	4.09	9.63	39.29	4.08	17.78	96.95	5.45	4.22	17.36	4.11	41.15	143.42	3.48
1991-1992	8.65	30.45	3.52	10.91	46.58	4.27	18.75	116.34	6.20	4.72	19.66	4.16	40.49	159.87	3.94
1992-1993	11.20	34.38	3.07	9.16	48.21	5.26	28.89	139.98	4.84	6.12	25.17	4.10	52.31	305.25	5.84
1993-1994	11.94	38.62	3.23	10.50	41.83	3.98	32.19	171.5	5.32	6.43	41.04	6.38	58.46	407.09	6.96
1994-1995	16.93	46.15	2.72	12.12	33.97	2.80	42.81	176.78	4.12	6.57	35.35	5.38	66.25	533.91	8.06
1995-1996	23.44	58.02	2.47	10.24	51.90	5.06	58.05	233.64	4.02	8.22	31.70	3.85	75.96	583.57	7.68
1996-1997	27.65	71.60	2.58	9.07	45.95	5.06	64.09	287.73	4.49	7.52	31.84	4.23	108.53	663.31	6.11
1997-1998	27.94	85.42	3.06	7.67	63.49	8.27	60.91	275.86	4.53	7.84	32.01	4.08	134.39	1037.98	7.72
1998-1999	29.31	87.47	2.98	7.72	63.57	8.23	65.25	361.43	5.54	7.64	31.61	4.13	140.86	1117.62	7.93
1999-2000	31.69	94.44	2.97	9.33	78.51	8.41	64.36	408.27	6.34	-	33.35		182.32	1539.33	8.44

Inventory Turnover Ratio = Cost of sales / Inventory

Source:- Bombay Stock Exchange Official Directory

maximum at 8.41 in year 1999-2000 and minimum at 2.80 in 1994-1995 the range of ratio is 5.61.

The inventory turnover ratio is lowest in case of Raymond Ltd. from 1991-2000. It stand minimum at 2.47 in the year 1995-96 and maximum 4.09 in the year 1990-1991. The range of ratio is 1.62. This is second lowest in case of Modipan Ltd. The maximum figure is 6.38 in the year 1993-94 and minimum is 4.08 in 1997-98. The range of a ratio is 2.30.

The inventory turnover ratio in case of Grasim Industries Ltd. is maximum at 6.34 in year 1999-2000 and minimum at 4.02 in 1995-96., The range of ratio is 2.32.

The inventory of textile industry consists of raw materials, goods in process and finished goods. The factors leading to variations in inventory turnover of selected textile industries in following manner:

A low level of inventory has serious implications. It will adversely affect the ability of a firm to meet customer demand, as it may not be able to meet their requirements. That is, there is a danger of the firm being out of stock and incurring high stock out cost. It is also likely that the firm may be following a policy of replenishing its stock in too many small sizes. A part from being costly, this policy may relate the production process as a sufficient stock of materials may not be available.

Similarly a very low inventory turnover ratio is dangerous. It signifies excessive inventory or over investment and inventory. Carrying

excessive inventory involves cost in terms of interest of funds locked up, rental of space possible deterioration, in so on. A low ratio may be the result of inferior quality goods, over. Valuation of closing inventory stock of insolvable / absolute goods and deliberate excessive purchases in anticipation of future increases in prices, and so on.

This inventory turnover ratio may provide another measure of a company's performance. This is essentially a measure of physical volume. Because inventory is recorded at cost rather than selling prices the numerator of this ratio. The two problems generally arise while calculating this ratio. Firstly where as inventories are normally carried throughout the year while the inventories is taken at a particular point of time. This makes necessary to use the average figure by halving the sum of beginning and ending inventories. This ratio helps to ascertain the number of time the stock is turned over during a specified period which can be used to estimate the inventory requirements at various point of time. This ratio helps in determining the liquidity of business concern in as much as it indicates the rate at which the inventories are converted into sales and then into cash ultimately. This ratio also throw light on the inventory policy pursued by any unit and the reasonableness of the same. The ratio indicates how fast inventory is sold. A high ratio is good from the view point of liquidity since an improvement in the ratio shows that either the same volume of sales has been maintained with a lower investment in stock or the volume of sales has increased without any increase in the amount of stock. However, too high ratio and too low ratio call for further investigation. A too high ratio may be the result of a very low inventory levels which may result in frequent stock out and thus the firm may incur high stock-out costs. A low ratio is indicative of slow

moving inventory and ratio that is falling or lower than competitors or both is a sign of potential danger; on the other hand, a company may deliberately carry large inventories to reduce the loss of sales caused by inadequate stocks and to avail itself of economics of large purchase or production lots. The effects of the company's inventory measurement methods. During and after a period of generally rising prices as for LIFO inventories will have higher turnover ratio than FIFO inventories. When replacement cost data is available they can be substituted for the his to recall cost amounts to make the ratio more comparable over time and among companies. Generally a high inventory turnover is indicative of goods inventory turnover suggests an inefficient inventory management.



CHAPTER - V

***Process of Receivables and
Payables Management***

- 1- Meaning
- 2- Cost of maintaining receivables
- 3- Objectives of receivables management
- 4- Principle of credit management
- 5- Credit policy
- 6- Evaluation of receivables management
- 7- Composition of receivables
- 8- Analysis of the efficiency of granting credit
and collection.
- 9- Turnover of accounts receivables



5.1 MEANING :-

Accounts receivable generally includes all claims Held against others for the further receipts of money good and service.¹ However, in accounting, it is used in a restricted as a designation for claims collectible in money in relatively near future. Most frequently these arise an account of the delivery of goods or rendering of services.² In other words it represents “debt owed to the firm by customers arising from sale of goods or services in the ordinary course of business”.³ It is extension of credit by one concern to other concern as well as to individuals. “When goods or services are sold under an arrangement permitting the customer to pay for then at a later date, the amount due from the customer is recorded as account receivables”.⁴ This is an assets account representing a claim to further payments of cash from the customers. According to Robert N. Anthony. “Accounts receivable are amount owed to the business enterprise usually by its customers. Some times this is broken down in to trade accounts receivable and other account receivable. The former refers to amounts owed by customers and the later refers to amounts owed by employee and others”.⁵ It is based on economic value an involves an elements of risk implied.

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1. “Accounts Hand book” (5th ed.) A Ronald Press Publication, John Wiley and sons, New York, 1970, P.1.
 2. Simons, H. & W.E. Karrenbrack, “Intermediate Accounting”, op. cit , P.1.
 3. Joy, O.M., “Introduction to Financial Management”, Homewood Illinios, 1977, P. 456.
 4. Emerson O, Henk; “Introduction Accounting”. Petrocell, chaqrter, 1st ed. Inted. New York, 1974, P.74.
 5. Robert, N Anthony; “Management Accounting” op.cit. P.45

In futurity as the goods delivered and services are rendered for payments be received in future”⁶

There are three categories of credit sales.⁷

(i) Open accounts, (ii) Negotiable promissory notes; and (iii) trade acceptance. Credit sales are generally made on ‘open accounts’ this is an entry in the ledger of the creditors which indicates a credit transaction. It is not evidence of the existence of a debt under the sales, but it may be used as evidence of goods and delivered or of services performed. Another form of negotiable promissory notes (trade credit) which require signing of notes or bills by the customers to pay the amount of credit on or before the specified date. The third form of ‘trade acceptance’ in this case, the customers are required to acknowledge the debts formally by accepting a draft drawn by the seller for making the payment on a specified date at a particular bank. However, bills notes and drafts provide legal evidence of debt and due date of payment in writing. These may also be used as security for bank advances. Trade acceptance by buyers with high credit rating are also marketable.

The use of notes payable and trade acceptance is rather restricted⁸, and therefore, most credit sales are now made on open accounts.⁹ It

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6. Ramamoorthy, V.E. “Working Capital Management”, Institute of Financial management and Research” Madras, 1976 P.183.
 7. Philippatos, and J.C., “Essential of financial Management”, Holden – Day Inc. California, 1974, P. 307.
 8. Phillipatos, G.C., “Essential of financial management”, op. cit., P.307.
 9. Hampton, John J. “Financial Decision Making; Concepts, Prentice Hall of India Pvt. Ltd. 1977, P.154

may also be noted that there are some enterprises which do not sell their products on credit. This may be due to the reason that such units having analyzed the trade off between costs and benefits of credit extension have either not initiated credit sales or have stopped at a latter stage.

5.2 COST OF MAINTAINING RECEIVABLES :-

The maintenance of receivables involves a credit sanction, which means the tie up of funds with it. The main cost associates with receivables are as follows:

5.2.1 COLLECTION COST :-

These cost are administrative costs incurred in collecting the receivables from the customers. They include additional expenses on the creation and maintenance of credit department with staff accounting records, stationary, postage and other related costs. Expenses involved in acquiring credit information, out side specialist by the staff of the firm itself.

5.2.2 CAPITAL COST :-

The time lag between the date of sales and the date of payment necessitates investment in receivables. Mean while the firm has to arrange additional fund to meet its own obligations. The cost of the use of additional capital to support credit sales, which alternatively could be profitably employed else where, is therefore, a part of the cost of extending credit or receivables.

5.2.3 DELINQUENCY COST :-

There is another cost associated with extending Credit to customers. This arise out of the failure of the customers to meet there obligation when they fall due after the expiry of the period of credit. Such cost are called delinquency costs. The important components of the cost are:

- (i) Blocking up of funds an extended period;
- (ii) Cost associated with steps that have to be initiated to collect the overdue, such as reminders and other collection efforts, legal expenses, where necessary, and so on.

5.2.4 DEFAULT COST :-

After making all the attempts to recover the money, the firm may not be able to do so because of the inability of the customer. Such debts are treated as bed debts and have to be written off as they cannot be recovered. Such costs are known as default costs associated with receivables

5.3 OBJECTIVE OF RECEIVABLES MANAGEMENT :-

The basic objective of receivable management is to maximize the value of the firm by away of achieving a trade off between risk and profitability. "The optimum investment is determined by comparing the benefits to be derived from a particular level of investment with the cost of maintaining that level. These costs involve not only the funds tied up in receivables, but also losses from account that do not

pay. The later arises from extending credit to inventory.”¹⁰ In fact, the firm should manage its receivables in such a way that sales are expended to the extent to which risk remains within an acceptable limit. In briefs, the objectives of receivable management are as follows:

- (i) to keep down the average collection period ;
- (ii) To obtain the optimum volume of sales;
- (iii) The maintain the optimum level of investments in receivables, and
- (iv) To control the cost of credit and keep it at minimum.

The purpose of receivable management is not sales maximization. But maximization in the efficiency and effectiveness of receivables administration. It helps to expand sales and can prove to be an effective tool of marketing. It helps to retain old customers and win new customers.

The objective of receivables management is “To promote and sales and profit until that point is reached where the return on investment in further funding or receivables is less than the cost of funds raised of finance that additional credit; (i.e. cost of capital)”¹¹

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- 10. James C. Van Horne; “Fundamentals of Financial management”, Prentice Hall of India Pvt. Ltd., New Delhi, III ed. 1978, P.115.
 - 11. Bolton, S.E. “managerial Finance” (Boston) Houghton, Mifflin Co. 1976, P. 446.

5.4 PRINCIPAL OF CREDIT MANAGEMENT :-

According to Joseph L.Wood, "The purpose of any commercial enterprise is the earning of profit. Credit in itself is utilized to increase sales, but sales must return a profit." ¹² It is obvious that the firm's objective with respect to receivable management is not merely to collect receivables quickly but to give attention to the benefit cost trade of involved in the various areas of accounts receivable management.

An important function of credit management is to carefully decide the forms of credit. It includes selection of credit customers, fixation of credit limit approval of credit period, provision for acceptance of security against credit. Unless there done very carefully after proper analysis of all the factors, profitability will be affected by the incidence of bad debt; proper credit investigation is a Pre-requisite of a good credit policy.

Effective sound of credit and collection policies is the first phase of receivable management. The top management takes decisions in consultation with financial and marketing executives. The responsibility to administrator credit and collection policies may be assigned either to A financial executive or to a marketing executing or a both of them jointly depending on the organizational structure and the objectives of the firm. ¹³

However, the function of credit control is performed with in the policy, framework laid down by the top management. To make credit

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12. L.Wood Joseph, "Credit and collection in darialillian Business Finance Hand book" (Engleweed cliffs New Jersey; Prentice Hall, 1962, P.4)
 13. Hampton, John J. "Financial Decision Making; Concepts, Prentice Hall of India Pvt. Ltd. 1977, P.154

profitable, a firm should follow certain well-recognized and established principles relates to the allocation of authority pertaining to credit and collections to some specific department. The **second principle** emphasize on the selection of proper terms. The **third principle** of credit management puts stress on a through credit investigation before a decision on granting credit is taken and the last principal of credit management touches upon the establishment of sound “collection policies and procedures”¹⁴

5.5: CREDIT POLICY :-

Credit policy of any business enterprise is resolved by weighing the objectives of profitability for the marketing department with the conservative influence of accounting credit and collections. A credit policy concern with influenced by many factors such as the type of products sold, types of customers, profit margin, general economic conditions. Products of low unit price can generally be sold to customers representing greater credit risk than when selling items of high unit value. There is greater turnover of collections, involving payment of smaller accounts.

The profit margin of the seller like wise influence the degree of risk that will we involved in accepting additional customers when the profit margins are greater. Accounting to Harry Gross,” Two very important considerations involved in incurring additional credit risk are the market for a company seller’s products is greater than its capacity to

14- R.K. Mishra, “Problems of working capital”-with reference in India (Bombay, Somaiya Publications (P) Ltd., 1975) P.94

Produce then it would be selective in the credit of its customers. Conversely is the supply of the product exceed the demand, The seller would be more likely to lower credit standard with resulting greater risk.”¹⁵

An important aspect of the credit policy should be identified before establishing an optimum credit policy. The three important decision variables of credit are : (i) Credit terms (ii) Credit standards and (iii) collection policy.

(i) **CREDIT TERMS :-**

The stipulations, under which the firm sales on credit to its customers are called credit term. The decision on the terms on which credit will be granted may cover various aspects of credit policy, namely selection of credit customers, approval of credit period, acceptance of sales discount and provision regarding the instruments of security for credit to be accepted. The terms of credit should be determined in the light of the needs of the firm and the established practices of the industry in this regard.

The amount of funds tied up in receivables is directly related to the limits of credit granted to customers. These limits should never be ascertained on the basis of the firm own requirements, they should be based upon the debt paying power of the customer and his ledger record of the orders and payments”.¹⁶ The time duration for which credit is extended to the customers is referred to as credit period. It is generally stated in term of a net date. Credit terms have two components are :

15- Harry Gross, “Financing for small and medium sized business”, op. cit., P.80

16- N.Theodore Beckman, “Credit and collection” Management and theory – (New York McGraw Hill Company, 1962) P.622.

- (a) Credit period and;
- (b) Cash discount term

(a) CREDIT PERIOD :-

The time duration for which trade credit is extended to the customers is referred to as credit period. It is generally stated in terms of a net date. If a firm's credit terms are "net 35", it is expected by the firm that payment will be made within 35 days from the date of credit sales. Credit period directly influences the volume and quality of accounts receivables. Longer credit period may increase sales on the one hand and debts on the other hand. The period of credit for each individual customer should, therefore, be worked out after considering his financial position. In general, the free credit period allowed, "to pay for the goods purchased on accounts tends to be tailored in relation to the period required for the business and in turn to resell the goods and to collect payment for them,"¹⁷

(b) CASH DISCOUNT :-

Cash discount is another aspect of credit terms. Many firms offer to grant cash discount to their customers in order to induce them to pay their dues early. The cash discount term indicates the rate of discount and the period for which the discount has been offered. Credit terms involve both the length of the credit period

17- N. Theodore Backman, "Credit and Collection Management And theory" (New York, McGraw Hill company) 1962, P. 208.

and the discount given. This the discount leave positive effects on profit. However the “The management of a business enterprise should always take note of the point the cash discount as a percentage of invoice price, must not be so high as to have an uneconomic bearing on the financial position of the industry.”¹⁸ To make cash discount an effective tool of credit control, a business enterprise should also see that it is allowed to only those customers who make payments at due date”.¹⁹ It should also be seen in this connection that the terms of sale include net credit period so that cash discount may continue to retain its significance and might be prevented from beginning treated by the buyers just like “Quantity discount”.²⁰

(ii) CREDIT STANDARD :-

The credit standard followed by the firm has an impact on sales and receivables are likely to be high if the credit standards of the concern are relatively loose. Liberal credit standard tend to push sales up by.

Attracting more customers. This is however, accompanied by higher incidence of bad debts loose, a larger investment in receivables, and a higher cost of collection. According to Van Horn,²¹

18- Greig Cuthbert : “Commercial credit and accounts collection” the furniture record London, 1952, PP. 26-27.

19- Greig Cuthbert : op. cit., P. 26.

20- Beckman Theodore N: “Credits and collections management and theory”, McGraw-Hill, New York, 1962 Ed. P.212

21- James, C. Van Horne : “Fundamentals of financial Management” P. 116-117

There is the cost of additional investment in receivables, resulting from (i) increase sales and (ii) a slower average collection period. If new customers are attracted by the relaxed credit standards, collection from these customers is likely to be slower than existing customers. In addition a more liberal intension of credit may cause certain existing customers to be less conscientious about paying their bills in time.

(iii) COLLECTION POLICY :-

Collection policy refers to the procedures adopt by firm to collect payments due on past accounts. Collection policy required to the customers does not pay the firms bill in time. For the proper regulation of receivables, the management of a firm should also formulate satisfactory collection policies and procedures.

The collection policy of the firm is determined by the combination of collection procedures its undertake. The procedures include such as letters, including reminders to expedite payment, telephone calls for personal contact, personal visits, help of collection agencies and finally legal action and justified to be reduced payments in settlement of accounts.

A congenial follow up system can be established through various practice. "For the establishment of a proper collection follow up system" professor Albert F.Chapin suggests "The use of the ledger plan or card tickler system". The ledger plan of the collection follow up system depends upon the creditors ledger records. The card fickler system is made up of a card for each delinquent, field according to dates. Each card

Contains and amount, terms, due date of past due account in questions and the collection action so far taken together with its details. Offer, The use of computers has also come in vogue for routine purpose of credit management.²²

(iv) **CREDIT ANALYSIS :-**

Firms are not allowed to discriminate between customers by charging them different prices. Neither may they discriminate by offering the same prices but different credit terms. You can offer different terms of sale to different classes of buyers. You can offer volume discounts, for example, or discount to customers willing to accept long term purchase contracts. But as a rule, if you have a customer of doubtful standing, you should keep to your regular terms of sale and protect yourself by restricting the volume of goods that the customer may buy on credit.

There are a number of ways by which you can find out whether customers are likely to pay their debts. The most obvious indication is whether they have paid promptly in the past. However, beware of the customer who established a high credit limit on the basis of a series of small payments and then disappears, leaving you with a large unpaid bill. If you are dealing with a new customer you will probably arrange for a credit agency to undertake a credit check. Dun and Bradstreet is by far the largest of such agencies. Its database contains information on more than companies. Credit agencies usually report the experience that other

22- For a discussion of credit decision making by simulation see Roger L. Sisson and Norman L. Statland "The future of computer in credit management", credit and financial management, November 1983, P.P. 40-44.

firms have had with the customers; you may also be able to get this information by checking with a credit bureau or by contacting the firms directly.

5.6 EVALUATION OF RECEIVABLE MANAGEMENT :-

The Efforts of a management to control receivables should be directed towards maintaining optimum level of receivables. Analyzing the size and composition of receivables and the efficiency of granting credit can do the evaluation of receivable management.

EXHIBIT 5.1 :- SHOWS THE VOLUME OF RECEIVABLES IN RELIANCE INDUSTRIES LTD.

(Fig. In crores)

YEAR	RECEIVABLES	GROWTH INDEX (%) (Base year 1990-1991 = 100)
1990-1991	17.29	100
1991-1992	105.46	147.93
1992-1993	148.82	208.75
1993-1994	297.76	417.67
1994-1995	338.27	474.5
1995-1996	233.84	328.01
1996-1997	254.4	356.85
1997-1998	232.72	326.44
1998-1999	274.28	384.74
1999-2000	776.97	1089.87

Source :- Bombay Stock Exchange official Directory

The size of receivables and its growth index in Reliance Industries 1990-91 to 1999-2000 may be analyzed as follows.

Receivables of Reliance Industries Ltd. Include sundry debtors and Misc. current assets. In this industry Misc. Current assets treated as bills receivables because after observation The profit & loss account of this industry. There were not seen any prepaid expenses separately.

It is evident from the exhibit – 5.1 that the absolute size of receivables in Reliance Industry registered an invariable trend of size thought the period of the study. The growth index of Receivables is also marked an increasing trend of size throughout the period under study. The absolute figure of receivable was 71.29 crores in 1990-91 which increased to Rs. 105.46 crores in 1991-92, its growth index improved more than three time with in one year. The value of Receivable increased to Rs. 297.76 crores in 1993-1994 and it growth increased with more than four time in comparison to the base year. Again, it has risen to Rs. 232.72 crores in 1997-98 and growth index rise up three as against 1990-91. Further, the volume of receivables has remarkably increased to Rs. 776.97 crores in 1999-2000 and its growth index has remarked a growth of more than ten times in comparison to the base year. On the whole, it may be said that the volume of receivables and its growth index have maintained an increasing trend during the period under study.

5.7 COMPOSITION OF RECEIVABLES : -

A very vital tool for evaluating the Management receivables is the study of their composition. It helps in showing the point where receivables concentrated the most. By comparing the composition with the ideal one, the draft of receivable

management towards efficiency or inefficiency may become comprehensible.

The receivables in the reliance industries. Under the study comprises the total of sundry debts and Misc. assets. It has been observed that the management desired to keep minimum funds invested in receivables. Such desire of the management was financially product as the minimization of investment was expected to reduce the working capital requirement of the industry.

The absolute figure of sundry debtors and percentage and absolute figure of Misc. C. Assets and percentage to "total receivables" in the unit under study have been as under :

It is evident exhibit 5.2 that it were sundry debtors which ruled the composition of receivables in the unit under the study in all year except 1990-1991 where the percentage of sundry debtors was 57.02. Therefore, the percentage of sundry debtors to total receivables was calculated 69.33% in 1991-1992 which came down to 38.82% in 1994-1995 while sundry debtors was an increasing in absolute term and again to again sundry debtors increase in 1997-98 in 60.42% .

On the other hand, Misc. current assets were 42.98% in 1990-1991, which has, came down to 30.67% in 1991-92. Further it has increased to 67.18% in 1994-95, while the Misc. current assets has increase in absolute term Thus, while sundry debtors predominated the over all structure of receivables, Misc. current assets also had a significant place in composition of receivable in the unit under the study.

Exhibit 5.2 :- SHOWING THE COMPONENTS OF RECEIVABLES IN RELAINCE INDUSTRIES LTD.

(Fig. In crores)

YEAR	SUNDRY DEBTORS	PERCENTAGE	MISC. ASSETS	PERCENTAGE	RECEIVABLE
1990-1991	40.65	57.02	30.64	42.98	71.29 (100.00)
1991-1992	73.12	69.33	32.34	30.67	105.46 (100.00)
1992-1993	91.58	61.54	57.24	38.46	148.82 (100.00)
1993-1994	143.06	48.05	154.70	51.95	297.76 (100.00)
1994-1995	111.01	38.82	227.26	67.18	338.27 (100.00)
1995-1996	100.58	43.01	133.26	56.99	233.84 (100.00)
1996-1997	133.31	52.40	121.09	47.60	254.40 (100.00)
1997-1998	140.61	60.42	92.11	39.58	232.72 (100.00)
1998-1999	148.97	54.31	125.31	45.69	274.28 (100.00)
1999-2000	206.39	26.56	570.58	73.44	776.97 (100.00)

 Source :- Bombay Stock Exchange official Directory

5.8 ANALYSIS OF THE EFFICIENCY OF GRATING CREDIT AND COLLECTION :-

Receivable

management, to be successful should ensure a comparatively slower growth of receivables as against sales, a satisfactory receivables turnover and collection period, minimum bad debt losses and effective use of the capital invested. This analysis of efficiency of grating credit and collecting past due accounts in the unit under the study supported this point. As suggested by professor R.W. Johnson, "An analysis of the efficiency of grating credit has been done on the basic of a computation of the turnover of accounts receivables."²³ The analysis of the efficiency past due accounts has been made on the basis of the ageing accounts receivable.

5.9 TURNOVER OF ACCOUNTS RECEIVABLE :-

The accounts

receivables turnover ratio shows the relationship between sales and accounts receivables of a company. It can be calculated thus.

Account receivable turnover ratio = Net Sales/Receivables

The receivable turn over ratio shows the efficiency achieved is using the fund invested in receivables. Funds invested in receivables are not available for other profit use. An increase in the volume of receivables without corresponding increase in the total current assets may cause decrease in the volume of investment in other Components of

23- Johnson, R.W., "Financial management", Allyn and Bacon, Boston, Second edition, 1962, P.P. 584-585.

current assets.²⁴ According to Jerome and Sidney, "If investment in inventory is reduced, it may, in turn effect total sales and consequently reduce the profits of the form"²⁵. The reserve may be true in case of decrease in the volume of receivables.

A higher turnover accounts receivables on the one hand indicates quick collection of sundry debtors and on the other hand, enables the firm to transact a high volume of business without corresponding increase in the investment in receivables.

According to spiller and Gosman. "The turnover of receivables provides information on the liquidity of the receivables."²⁶ It indicates the speed or slowness, with which receivables are covered in to cash. It also serves as a primary indicator of efficiency in this area of investment.²⁷ The objective of the comparison implied in the accounts receivables turnover ratio is to learn how old the accounts are and partly also to learn how fast cash will flow through their collections.

The problem of receivable management in the unit under the study was concerned not only with the control of misc. current assets but also with the regulation of account receivables. To support this point, an analysis of the efficiency of granting credit and collecting past due accounts has also been done.²⁸ In this regard, the turnover of account

24- B.Jerome Cohen and Sidney M. Robbins, "The financial manager" (New York: Harper and Row, and John Weather hill Inc. Tokyo, 1966) P. 460

25- N.K. Agrawal, " Management of Working Capital" Sterling publishers (p) Ltd. New Delhi, 1983. P. 62

26- Spiller and Gosman, "Financial accounting basic concepts (Richard D. Irwin Inc. Home wood, Illinois, Fourth ed. 1984) P.679

27- I bid, P. 684

28- Similar views have been expressed by Johnson R.W. " "Financial Management" Allyn and Bacon, Boston 11th ed. 1962, P.P. 584-585.

receivables has been taken as an important tool to judge the efficiency of granting credit. Its position is as follows: -

Exhibit 5.3 : SHOWING THE TURNOVER OF ACCOUNTS RECEIABLES OF RELIANCE INDUSTRIES LTD.

(Fig. In Crores)

YEAR	RECEIVABLES.	NET SALE	RATIO
1990-91	71.29	210.3	2.95
1991-92	105.46	230.17	2.18
1992-93	148.82	410.62	2.76
1993-94	297.76	534.51	1.8
1994-95	338.27	701.9	2.07
1995-96	233.84	778.63	3.33
1996-97	254.4	873.03	3.43
1997-98	232.72	1340.37	5.76
1998-99	274.28	1455.32	5.31
1999-00	776.97	2030.13	2.61

Turnover of account Receivables = Net Sales / Receivables

Source :- Bombay Stock Exchange Official Directory

TURNOVER OF SUNDRY DEBTORS :-

Debtor's turnover ratio signifies the efficiency of companies with regard to relation from the trade debtors. The numerators of the ratio is the net sales and the denominator is sundry debtors. Debtors in a company depend upon the

(151)

Exhibit 5.3 (A) shows the turnover of accounts receivable of selected textile industries

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD			GRASIM INDUSTRY LTD.			MODIPAN LTD			RELIANCE INDUSTRY LTD.		
	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage
1990-91	13.81	42.58	3.08	13.05	50.07	3.84	65.43	123.05	1.88	8.10	23.76	2.93	71.29	210.30	2.95
1991-92	18.84	46.87	2.49	13.66	56.25	4.12	62.92	147.25	2.34	9.34	24.12	2.58	105.46	230.17	2.18
1992-93	24.39	51.18	2.10	13.88	57.07	4.11	85.47	174.80	2.04	9.97	31.01	3.11	148.82	410.62	2.76
1993-94	30.01	58.14	1.93	14.30	53.69	3.75	81.83	220.63	2.69	11.93	51.95	4.35	297.76	534.51	1.80
1994-95	47.64	71.49	1.50	11.89	38.80	3.26	135.94	240.11	1.76	14.41	43.65	3.02	338.27	701.90	2.07
1995-96	59.19	89.18	1.50	17.79	60.39	3.39	140.30	320.54	2.28	9.90	39.07	3.94	233.84	778.63	3.33
1996-97	67.22	97.53	1.45	16.48	53.45	3.24	125.15	360.40	2.87	8.18	38.97	4.76	254.40	873.03	3.43
1997-98	59.45	119.29	2.00	15.52	72.52	4.67	142.50	350.13	2.45	8.56	38.18	4.46	232.72	1340.37	5.76
1998-99	60.66	128.21	2.11	15.52	75.67	4.87	123.71	433.99	3.50	8.56	38.44	4.49	274.28	1455.32	5.31
1999-00	47.58	133.82	2.81	12.95	93.20	7.19	147.70	499.29	3.38	18.69	40.56	2.17	776.97	2030.13	2.61

Ratio = Net Sales/ Receivable

[Receivable = Sundry Debt. + Misc. Current Assets]

Source :- Bombay Stock Exchange Official Directory

trade creditors extended i.e. the credit sales and the length of credit period. These factors depend upon the management policy decisions, which are further influenced by the trade customs prevailing in the industry nature of the product, its units values, consumption life of the product and availability of funds.

**Exhibit 5.4 SHOWS THE TURNOVER OF SUNDRY DEBTORS
IN RELIANCE INDUSTRIES**

(Fig. In Crores)

YEAR	SUNDRY DEBTORS	NET SALES	TURNOVER OF SUNDRY DEBTORS
1990-91	40.65	210.3	5.17
1991-92	73.12	230.17	3.15
1992-93	91.58	410.62	4.48
1993-94	143.06	534.51	3.74
1994-95	111.01	701.9	6.32
1995-96	100.58	778.63	7.74
1996-97	133.31	873.03	6.55
1997-98	140.61	1340.37	9.53
1998-99	148.97	1455.32	9.77
1999-00	206.39	2030.13	9.84

Turnover of Sundry Debtors = Net Sales / Sundry Debtors

Source :- Bombay Stock Exchange Official Directory

Exhibit 5.4 (A) Shows the highest debtors turnover ratio has been found

Exhibit 5.4 (A) shows the turnover of sundry debtors in selected textile industries

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage
1990-91	6.32	42.58	6.74	7.04	50.07	7.11	16.04	123.05	7.67	1.87	23.76	12.7	40.65	210.3	5.17
1991-92	7.08	46.87	6.62	7.95	56.25	7.07	25.03	147.25	5.88	3.25	24.12	7.42	73.12	230.17	3.15
1992-93	11.22	51.18	4.56	7.99	57.07	7.14	24.55	174.8	7.12	3.66	31.01	8.47	91.58	410.62	4.48
1993-94	11.16	58.14	5.2	6.91	53.69	7.76	34.09	220.63	6.47	4.7	51.95	11.05	143.06	534.51	3.74
1994-95	18.53	71.49	3.85	7.27	38.8	5.33	40.21	240.11	5.97	5.91	43.65	7.38	111.01	701.9	6.32
1995-96	28.22	89.18	3.16	7.12	60.39	8.48	68.62	320.54	4.67	6.33	39.07	6.17	100.58	778.63	7.74
1996-97	29.54	97.53	3.3	6.7	53.45	7.97	84.07	360.4	4.28	5.4	38.97	7.21	133.31	873.03	6.55
1997-98	34.61	119.29	3.44	8.69	72.52	8.34	74.54	350.13	4.69	6.45	38.18	5.91	140.61	1340.37	9.53
1998-99	33.94	128.21	3.77	8.4	75.67	9	78.34	433.99	5.53	7.08	38.44	5.42	148.97	1455.32	9.77
1999-00	31.5	133.82	4.24	7.69	93.2	12.11	77.92	499.29	6.4	2.12	40.56	19.13	206.39	2030.13	9.84

Turnover of Sundry Debtors = Net Sales / Sundry Debtors

Source :- Bombay stock exchange official directory and annual reports & accounts

in case of Modipan Ltd. and its reverage ranges from 19.13 in 1999-2000 to 6.17 in 1995-96. The range of ratio is 12.96. The ratio is second highest in case of century Enka Ltd. It is maximum in the year 1999-2000 at 12.11 and minimum in the year 1994-95 at 5.33. The range of ratio is 6.78 According to exhibit 5.4 (A) debtors turnover ratio is lowest in case of Raymond Ltd. The maximum figure is 6.73 in 1990-91 and minimum is 3.16 in 1995-96. The range of ratio is 3.57

In the case of Reliance industries Ltd. the maximum figure 9.84 in 1999-2000 and minimum is 3.74 in 1993-94. the range of ratio 6.10.

After the detailed study of exhibit we can conclude that the higher turnover ratio and shorter average collection period is the best trade credit management policy. In other words we can say that short collection period and high turnover ratio is the result of prompt payment from debtors. The product of textile industry are relatively less durable consumable products and have lower unit value and shorter consumption life. These factors suggest that the debtors turnover ratio must be high. But on the other hand higher storage cost, possibilities of quality deterioration over a period of time and competitive nature of companies compel the companies to dispose of textile at the earliest and grant credit for a longer period. Besides, trade customs prevailing in textile industry also make the companies to offer credit facilities for a longer period of time.

Low turnover ratio and long collection period reflect that payments by debtors are delayed. A very long collection period would imply either poor credit selection or an inadequate collection effort. The

delay in the collection of receivables would mean that part from the interest cost involved in maintaining a higher level of debtors the

liquidity position of the firm would be adversely effected. Moreover there is the like hood of a large number of account receivable becoming bad debts. Similarly too short a period of average, collection period of average or too high turnover ratio is not necessarily good. While it is true that it avoids the risk of receivable being bed debts as well as the burden of high interest on outstanding debtors, it may have an adverse effect on the volume of sales of the company. Sales may be confirmed to only such customers as make prompt payments.

This ratio indicates the speed with which the debtors turnover on an average each year. In general a high ratio indicates the shorter collection period which implies prompt payment by debtors, and a low ratio indicates a longer collection period which implies delayed payments of debtors. However, too high ratio too low ratios call for further investigation. A too high ratio may be the result of a restrictive credit and collection policy, which may curtail the sales and consequently profits. On the other hand, a too low ratio may be the result of liberal and inefficient credit and collection policy, which may involve the risk of bed debts, and burden of high interest cost involved in maintaining. A higher level of debtor. This a firm should have a satisfactory level. To judge whether the ratio is satisfactory or not it should be compared with its own past ratios or with the ratio of similar firms in the same industry or with the industry average.

PERCENTAGE OF BOOK DEBTS TO NET SALES :-

It has been reformed by the analysis of book debts to net sales in terms of percentage, which is as follows.

Exhibit 5.5 Showing the percentage of book debts to Net sales in Reliance Industries Ltd.

(Figure in crores)

YEAR	SIZE OF BOOK DEBTS	NET SALES	% OF BOOK DEBTS TO NET SALES
1990-91	40.65	210.3	19.33
1991-92	73.12	230.17	31.77
1992-93	91.58	410.62	22.3
1993-94	143.06	534.51	26.76
1994-95	111.01	701.9	15.82
1995-96	100.58	778.63	12.92
1996-97	133.31	873.03	15.27
1997-98	140.61	1340.37	10.49
1998-99	148.97	1455.32	10.24
1999-00	206.39	2030.13	10.17
2000-01	1134.17	20441.35	5.55
2001-02	2722.46	42088.9	6.47

Percentage of book debts to Net sales = (Book debts/Net sales) x 100

Source :- Bombay Stock Exchange Official Directory & Annual Reports

It is apparent from exhibit 5.5 that the percentage of book debts to net sales in the unit under the study had a tendency had risen from 19.33 percentage in 1990-91, further the percentage of book debts to net sales gone up to 31.77 percent in 1991-92. It indicates the management is failing to control book debts.

But again year the percentage of book debts to net sales is also came down in the year 1992-93 is 22.30 percentage and again year is very

blow as the year 1999-2000 is 10.17 percentage. It indicates the management is control book debts.

Thus, the percentage of book debts to net sales had over all followed up trend which supports the idea that the management in the Reliance Industries under the study had been failing to control its book debts Successfully during all the period under the study.

AVERAGE COLLECTION PERIOD :-

The average collection period ratio measure the quality or debtors since it indicates the rapidity or slowness or their collectibles. According to P. Lewis, "the average collection period is a significant measure of collection activity and the quality of account receivables."²⁹ The shorter the average collection period better the quality of customers and the lower the collective expenses. The average collection period should be compared against the firms credit term policy to judge its credit and collection efficiency. "Slow paying customers have to be handled tactfully to make prompt payment."³⁰

An old accounts cause heavy collection expenses and increased the probability of bad debt losses.³¹ The levy of penal interest on late payment assist a firm in maintaining the planned rate of the average collection period. "The sooner the firm receivables the cash due on

29- P.Lewis Erics, "Monitoring accounts Receivables" management accounting (sept. 1973) P.P. 18-21.

30- V.E. Ramanmoorthy, "Working Capital Management" op. cit , P. 227.

31- Theodore No. Backman, credit and collection management and theory, op. cit. P.37.

sales, the sooner it can put that money to work for earning interest. That is the cost of long collection period is a return lost on these funds.”³²

The average collection period thus indicates in a firm's efficiency in the collection of receivables. This ratio is calculated as follows.

$$\text{Average collection period} = (\text{Debtors} \times \text{days in a year}) / \text{Sales}$$

Exhibit 5.6 SHOWING THE AVERAGE COLLECTION
PERIOD OF RELIANCE INDUSTRIES LTD. :-

(fig. In crores)

Year	Debtors	Cost of Good Sold	Average Collection Period (No. of days)
1990-91	40.65	143.42	102
1991-92	73.12	159.87	165
1992-93	91.58	305.25	108
1993-94	143.06	407.09	127
1994-95	111.01	533.91	75
1995-96	100.58	583.57	62
1996-97	133.31	663.31	72
1997-98	140.61	1037.97	49
1998-99	148.97	1117.62	48
1999-00	206.39	1539.33	48

$$\text{Average collection period} = (\text{Debtors} \times \text{days in a year}) / \text{Sales}$$

Source: - Annual reports & accounts

32. Schall and Haley, : "Introduction to financial management, "op. cit, P.418.

(159)

Exhibit 5.6 (A) shows the average collection period of selected textile industries

(figure in crores)

	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
YEAR	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage
1990-91	6.32	30.46	75	7.04	39.29	65	16.04	96.95	60	1.87	17.36	39	40.65	143.42	102
1991-92	7.08	30.45	84	7.95	46.58	61	25.03	116.34	77	3.25	19.66	60	73.12	159.25	165
1992-93	11.22	34.38	117	7.99	48.21	60	24.55	139.98	63	3.66	25.17	52	91.58	305.25	108
1993-94	11.16	38.62	104	6.91	41.83	59	34.09	171.5	72	4.7	41.04	41	143.06	407.09	127
1994-95	18.53	46.15	145	7.27	33.97	77	40.21	176.78	82	5.91	35.35	60	111.01	533.91	75
1995-96	28.22	58.02	175	7.12	51.9	49	68.62	233.64	106	6.33	31.7	72	100.58	583.57	62
1996-97	29.54	71.6	149	6.7	45.95	52	84.07	287.73	105	5.4	31.84	61	133.31	663.31	72
1997-98	34.61	85.42	146	8.69	63.49	49	74.54	275.86	97	6.45	32.01	73	140.61	1037.97	49
1998-99	33.94	87.47	140	8.4	63.57	48	78.34	361.43	78	7.08	31.61	81	148.97	1117.62	48
1999-00	31.5	94.43	120	7.69	78.51	35	77.92	408.27	69	2.12	33.35	23	206.39	1539.33	48

Average collection period = [Debtors x days in a year (360)]/Sales

Source :- Bombay stock exchange official directory and annual reports & accounts

The average collection period in the unit under the study is another device to measure the efficiency of collection of receivables. It is thus as follows.

It is evident from the exhibit 5.6 (A) that average collection period in the selected textile industry under the study had been rising significantly Reliance industry Ltd. The observation and the conclusion is quite clear that the various industries had a fluctuating trend throughout the period covered under the study. In case of Raymond Ltd. It is highest in average collection period in 175 days in 1995-96 and it is lowest period in 1990-91 at 75 days. In the case of Century Enka Ltd. the maximum average collection period in 1994-95 in 77 days and minimum at 35 days in 1999-2000. In the range of deference in 42 days in Century Enka Ltd. In the same case of Grasim Industries Ltd. the highest average collection period at 106 days in 1995-96 and lowest period in 1990-91 at 60 days and the other Modipal Ltd. the average collection period in maximum at 81 days in 1998-99 and minimum 23 days in 1999-2000 in my study period. In the case of Reliance Industries Ltd. the highest average collection period at 165 days in 1991-92 and lowest period in 48 days in 1999-2000. At the end we concluded that all the selected textile company in my study period that the management of selected company had not failing to manage its debts efficiently and successfully not due to erratic market conditions and changed the position of credit and collection considerably.

ACCOUNTS RECEIVABLES TO SALES RATIO : -

It is evident from the exhibit 5.7 that the percentage of account receivables to sales had an invariable trend of rise throughout the period of the study.

Exhibit 5.7 : SHOWS OF RECEIVABLE TO SALES RATIO OF RELIANCE INDUSTRIES LTD.

(Fig. In Crores)

YEAR	RECEIVABLES	NET SALES	IN PERCENTAGE
1990-91	71.29	210.3	33.9
1991-92	105.46	230.17	45.82
1992-93	148.82	410.62	36.24
1993-94	297.76	534.51	55.71
1994-95	338.27	701.9	48.19
1995-96	233.84	778.63	30.03
1996-97	254.4	873.03	29.14
1997-98	232.72	1340.37	17.36
1998-99	274.28	1455.32	18.85
1999-00	776.97	2030.13	38.27

Receivables to sales ratio = (Receivables/sales) x 100

Source :- Bombay Stock Exchange Official Directory

In the exhibit 5.7(A) this ratio establishes a relationship between Receivable and net sales. In the case of Raymond Ltd. receivable to sales ratio is maximum in 1996-97 in 68.92% and minimum in 1990-91 in 32.43 percentage. The range of ratio is 36.49%. And the other case of Century Enka Ltd. the receivable to sales ratio is higher in 1996-97 is

(162)

Exhibit 5.7 (A) shows the receivable to sales ratio of selected textile industries

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRY LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage	Receivable	Net sales	Percentage
1990-91	13.81	42.58	32.43	13.05	50.07	26.06	65.43	123.05	53.17	8.1	23.76	34.09	71.29	210.3	33.9
1991-92	18.84	46.87	40.19	13.66	56.25	24.28	62.92	147.25	42.73	9.34	24.12	38.72	105.46	230.17	45.82
1992-93	24.39	51.18	47.65	13.88	57.07	24.32	85.47	174.8	48.89	9.97	31.01	32.15	148.82	410.62	36.24
1993-94	30.01	58.14	51.61	14.3	53.69	26.63	81.83	220.63	37.08	11.93	51.95	22.96	297.76	534.51	55.71
1994-95	47.64	71.49	66.63	11.89	38.8	30.64	135.94	240.11	56.61	14.41	43.65	33.01	338.27	701.9	48.19
1995-96	59.19	89.18	66.37	17.79	60.39	29.45	140.3	320.54	43.76	9.9	39.07	25.33	233.84	778.63	30.03
1996-97	67.22	97.53	68.92	16.48	53.45	30.83	125.15	360.4	34.72	8.18	38.97	20.99	254.4	873.03	29.14
1997-98	59.45	119.29	49.83	15.52	72.52	21.4	142.5	350.13	40.69	8.56	38.18	22.42	232.72	1340.37	17.36
1998-99	60.66	128.21	47.31	15.52	75.67	20.51	123.71	433.99	28.5	8.56	38.44	22.26	274.28	1455.32	18.85
1999-00	47.58	133.82	35.55	12.95	93.2	13.89	147.7	499.29	29.58	18.69	40.56	46.07	776.97	2030.12	38.27

Receivable to sales ratio = (Receivable / sales) x 100

Source :- Bombay Stock Exchange Official Directory

30.83% lowest in the year 1999-2000 at 13.89 percentages the range of this ratio is 16.94

Exhibit 5.7(A) shows the receivable to sales ratio of Grasim industry Ltd. is maximum 53.17 in 1990-91 and minimum at 28.50 in 1998-99. The range of ratio is 24.67. In case of Modipan Ltd. the highest ratio is 46.07 percentage in 1999-2000 and lowest in the year 1996-97 at 20.99.

In the case of Reliance, industries Ltd. the interpretation has been already made in exhibit 5.7(A). At the end we concluded that all the selected textile company in my study that the percentage of funds lock up in sundry debtors was not so significant, How ever, the rising trend should be checked throughout the period under study.



CHAPTER - VI

Cash Management

- 1- Concept of cash
- 2- Objective of cash management
- 3- Cash control
- 4- Cash management in Reliance industries Ltd.
- 5- Cash management function
- 6- Cash planning & control
- 7- Composition of cash
- 8- Adequacy of cash
- 9- Operational adequacy of cash
- 10- Control of cash flow
- 11- Coverage of current liabilities ratio

An overview about cash management



CASH MANAGEMENT:-

Cash is the most crucial component of working capital of a business concern. It is the basic input needed to keep the business running a continuous basis. It is also the ultimate output expected to be realized by selling the service or product manufactured by the industry. It is also the major and much awaited output or result of the industry's operation and there is the need for effective plan to replay this liquid resource to unmost productive use.

6.1 CONCEPT OF CASH:-

Cash, the most liquid assets is the vital importance to the daily operations of business concern. Cash refers to actual money of instruments or claims that the generally used and accepted as money. In other words, cash is an item of balance sheet, which is immediately available for operations of the business and the payment of debts. Generally, cash includes of funds that the immediately available for disbursement without restriction. Usually, most of these funds are deposits in current accounts in banks and the remainder is in cash registers or other temporary storage facilities on the company's premises.¹ In board terms, cash consists of legal tender cheque, bank drafts money orders and demand deposits in bank.²

Cash management is concerned with the managing of (i) cash flows into

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1. Anthony Rebert N., "Management Accounting" Text and Cases, Howewood, Illinois, 1960, P.40.
 2. Finney, H.A. and Miller, H.E., "principles of account in intermediate (5th ed) Englewood Cliffs, N.I. 1958 P.186.

out of the firm (ii) Cash flows within the firm and (iii) Cash balance held by the firm at a point of time. Cash management assumes more importance than other current assets because cash is the most significant and the least productive assets that a concern holds. It is significant because it is used to pay the concern's obligations. However, cash is unproductive like fixed assets or inventories. It does not produce goods for sale.

Effective management of cash is the key determinate of efficient working capital management. Cash like the blood stream in the human body, gives vitality and strength to a business concern.

The steady and healthy circulation of cash throughout the entire business operation is the basis of business solvency.³ According to J.M. Keynes, it is the cash, which keeps business going. Hence every enterprise has to hold necessary cash for its existence.⁴ On the other hand, excessive cash remains idle, without contributing anything towards. The concern's profitability moreover holding of cash balance has an implicit cost in its opportunity cost.⁵

"Cash is the both the beginning and the end of working capital cycle. Cash inventories, receivable and cash."⁶ While the management of all business concern's should strive hard to secure larger

3. B.B. Howard and in Upton: "Introduction to business finance", Mc. Graw Hill book Co. Inc. New York, 1953, P.188.

4. J.M. Keynes's, The general theory of employment, interest and money (Jevonovich New York, Harcourt Brace. 1936) P.P. 170-174.

5. K. Brand Lovis, Analysis of Finance Management, Prentice Hall, Inc. Englewood Cliffs, New Jersey, 1971, P.225.

6. R.K. Mishra, "Problems of Working Capital Management."

cash at the end of the working capital cycle than what had been invested into it at its beginning. They must also make it a point to constantly endeavor to reduce their cash fund to the best possible minimum. According to Hund Pearson William and others "carrying of cash and near cash reserve beyond the irreducible operating needs out assets turnover and rate of return."⁷ Whether a business concern is keeping enough, more than enough or less adequate, cash can be known by measuring its performance with regard to liquidity and profitability. Inadequate cash may degenerate a industry into a state of technical insolvency leads to its liquidation.⁸

An analysis of various forms of 'cash reveals' that in a narrow scene cash includes cash in hand and cash at bank only, but in a broad scene it denotes, cash in hand and other as well. The term cash sometimes also includes near 'cash assets' such as marketable securities or bank time deposits are also included in cash management.

The basic characteristic of near cash assets is that they can readily be converted into cash.⁹

7. Hund, Pearson: William, Charlies M. and Donaldson, Gordon; Basic business Finance Text and Cases Rechard d. Irvin.

8. N. K. Agarwal, "Management of working capital, sterling Publishers Private Ltd., New Delhi, P. 24.

9. Surendra S. Singhvi and John A. Kaupisch, "Review of Management" Economic Political Weekly, Vol. No. 35, (Aug. 291970) P.95.

6.2 OBJECTIVE OF CASH MANAGEMENT:-

The basic objectives of cash management are to meet the cash disbursement needs and to minimize funds committed to cash balances. These are conflicting and mutually contradictory and task of cash management is to reconcile them. Cash is there force aptly described as at 'oil to lubricate the every turning wheels of business without it the process grinds to a step.'¹⁰ In order to achieve the objectives of cash management is to hold sufficient cash to meet the cash disbursement needs in a business concern. The adequate of cash balance:

- (i) Prevents bankruptcy of the concern arising due to non-availability of cash to meet firms obligation on due dates.
- (ii) The relationship with the banks.
- (iii) Makes saving possible through availing of cash discounts by making payments within the due dates.
- (iv) Enhances credit worthiness of the firm.
- (v) Help to meet the firm unforeseen cash disbursement with less strain during emergencies. And
- (vi) Helps to avail of business opportunities, which may form time to time.

In order to achieve the objective of economic use of cash balances, the most important and practical plan devised to measure the funds requirements is a cash forecast. "Two very popular and widely used methods of cash forecast are (i) Cash budget methods (ii) The adjusted income methods: the other two methods are. Proforma balance sheet

10. Bolton, S.E. , Manegrial Finance, (bosten) Houghton Mifflin Co., 1976,P. 388.

methods and working capital extra potation method.”¹¹ The cash budgeted method is more useful, for a short period where as the adjusted income method suits for a longer period.

6.3 CASH CONTROL:-

The control of cash in an enterprise imperative sense there are moral legal and economic obligations on the part of its management to meet its commitments on the due dates.¹² The real problem in cash management does not concern with the procurement of cash, but its effective use and proper control for the smooth running of a business.¹³ The adequate cash reserve are indispensable for meeting obligations so as to maintain the liquidity position, however, a large idle cash reserve adversely affects the earnings of the enterprise. Thus the concept of cash control emanates from the necessity to achieve of a business concern.

The basic strategies generally used for controlling cash include :

- (i) Shortening of cash cycle;
- (ii) Speeding collection of accounts receivable; and
- (iii) Efficient inventory production management.

11. W.E., Methchell, Forecasting. International Text Book, Pennsy Lvania, 1987, P.P.233-243.

12. Walker, E. W. Op. cit., P.159.

13. Moshal, B. L. controlling the level and flow of cash in basri, R.R. Op. cit. P.255.

The continuing flow from cash to inventory, to accounts receivables and back to cash from cash is called the operating cycle.¹⁴ The techniques generally used for shortening each phase of a cash cycle may include;

- (i) Control of accounts payable through synchronosing receipts and disbursement and combining cash accounts and functions;
- (ii) Control of raw materials through optimizing quantities, utilizing economic order quantities removing obsolete items and considering not stocking of promptly delivered items.
- (iii) Proper scheduling and stocking of items for working in progress.
- (iv) Optimizing quantities making down obsolete items and expediting shipments of finished goods, and
- (v) Control of accounts receivable by means of expediting billing and collections.

The efficiency of cash cycle in a business enterprise can be judge by comparing cash phase of cycle as well as the overall cycle with these of industry or other successful units in the inventory. There is a lag between the time a cheque is prepared and mailed by the customer and the time the funds are including in the cash reservoir of the payment receiving concern. This time interval consists of postal float, lethargy and bank float combinally called deposit float.¹⁵ For reducing the deposit float an enterprise may adopt the policy of decentralized collections through concentration banking and/or lack box system.¹⁶ The concentration

14. Smith, K.V. Op. cit. P.7.

15. Joy O.M. Op. P.431.

16. Mock and Shucket, Management Services; Vol. 3, In Hand Book, Op. Cit. P. 104.

banking is an arrangement for accelerating the flow of funds of the concern by establishing strategic collection centers of the various places. An segregate its market region-wise and rents a local post office box for each region and asks its customers there into send payments to a post office box several times each day and credits concerns accounts forwarding the cheque to the banks on which they are drawn with due information to the concern. This procedure frees the concern from handing and depositing the cheque,¹⁷ and for the reason this arrangement may be regarded as an improvement over the concentration banking system.

6.4 CASH MANAGEMENT IN RELIANCE INDUSTRIES LTD.:-

Under this areas endeavors to explore the possible primary efficiency in which the company. Under this study managed it cash the evaluation of cash management has been done by analyzing the planning and control of cash in the Reliance and under the study. For this the efforts has been made to analysis the organization the cash management the mechanism of the cash planning and his tools which are employed to control the value of cash in the company under the study. Reliance Industry Ltd. has a separate department know as finance department which under take the function relating to the cash management the finance department has been put under the charge of chief financial controller who is accountable to the board of directors. The board of directors of company has constituted the finance committee

17. Van Harne, j. C. Op. cit. P. 425.

to make recommendations to the board relating to capital structure and the issue ness of security, review banking arrangement and cash management and review and approve certain short term and long term investment and other financial transecting.

The finance committee needs as and when the need consider any matter assigned to it arises. Time schedule for holding the meeting of the finance committee is finalized in consultation with the committee members.

The proportion of cash budget is the principal means of cash planning in the company under the study. The cash management involves estimated in follows of the resources as well as out flow of the resources. These forecast are prepared annually but are prepared annually but are subjected to review once in a year by financial committee for effective monitoring. They are broken into monthly weekly and daily cash budget. The source of cash in the company under the study are:-

- (i) Product income
- (ii) Bank borrowing
- (iii) Long term debtors
- (iv) International credit
- (v) Other receipts like security deposit from the delars suppliers and income of deposited and scripts and surplus inventory.

Reliance continuous to maintain it conservative financial profile as reflected in both its domestic and international ratings.

Reliance long term debt is rated "AAA" from CRISIL. The highest rating awarded by the agency. FITCH rating India has also awarded Ind. "AAA" debt rating for the company indicating the highest credit quality.

Reliance International debts carries rating of BB form S and P and Ba2 from modes Reliance exports and foreign exchange denominated oil and gas revenues provide a cover of more than 25 times its annual interest obligations on the foreign currency denominated debt.

Reliance funds its long term and project related financing requirements from a combination of internally generated cash flow and external sources. The average final maturity of RIL's total long term debt is nearly 7 years. The average final maturity of the company's long-term foreign exchange debt is about 10 years.

Reliance meets its working capital requirements through commercial rupee credit lines provided by a consortium of Indian and foreign banks. The credit lines are fixed annually and renewed on accurately basis. In addition Reliance issues short term debt in the form of fixed and floating rates bonds in Indian rupees.

Reliance borrowed foreign currency at low cost by way of buyer's credit, export credit and FCNR-B loans, which substantially reduced short-term interest cost.

Reliance also undertakes liability management transaction and enters into other structured derivatives arrangements such as interest rate and currency swaps. This is practiced on an ongoing basis to reduce overall cost of debt and diversify mix.

Reliance Industry Ltd.'s current cash flow levels, for loss than two years are adequate to extinguish its entire new debt, reflecting its inherent financial strength and conservatism.

6.5 CASH MANAGEMENT FUNCTION:-

Cash management

concern with planning cash needs, procuring and utilizing it effectively and maintaining a balance between liquidity and profitability of an enterprise. Planning and forecasting the cash needs of a business so as to make cash rarely available to meet its obligations is the heart of cash management function. Cash is a dynamic assets and therefore it is required to earn a return to maximize the business profit rather than remaining idle in the business.

Cash management function consists basically of having sufficient quantity of cash alone with maintaining a balance at the lowest level just adequate to meet current obligations.¹⁸ Moreover, another important function which cash management now a days seeks to undertake is to maximize profits by investing the surplus cash in some marketable securities.

Cash management, thus combines both liquidity and profitability aspects of a firm business activities. Thus necessitates that a cash manager has to coordinate the various decisions taken by the different department so that these may remain consistent with the objective of the liquidity and profitability.

Keynes, a prominent economist, pointed out their primary motive for holding cash:

- (i) The transaction motive
- (ii) The precautionary motive, and
- (iii) The speculative motive

18. C.W. cooke and E.C. Bomali; Business Financial Management, Bosten, 1967.P.66

6.5.1 TRANSACTION MOTIVE:-

This refers to holding of cash to meet routine cash requirement to finance the transaction which a industry carries on the ordinary business. The industry needs cash primarily to make payments for purchases, wages operating expenses, taxes, dividends etc. The need to hold cash would not arise, if there were perfect synchronization between cash receipts and cash payments, i.e. enough cash is receipts when the payment has to be made. But cash receipts and payments are not perfectly synchronization. Sometimes cash receipts exceed cash payments while at other times cash payments are more than cash receipts.

6.5.2 PRECAUTIONARY MOTIVE:-

precautionary motive is the need to hold cash to meet any contingencies in future. It provides a cushion or buffer to withstand some unexpected emergency. The amount of cash depends upon the predictability of cash flows and out flows in the ordinary course of business, a industry may have to pay cash for purpose which can not be predicted. The unexpected cash needs at short notice may be result of :

- (i) Floods, strikes and failure of important customers;
- (ii) Bills may be presented for settlement earlier than expected;
- (iii) Unexpected slowdown in collection of accounts receivables;
- (iv) Collection of some order for goods as the customer is not satisfy; and
- (v) Sharp increase in cost of raw materials.

6.5.3: SPECULATIVE MOTIVE:-

It refers to the desire of a industry to take advantage of opportunities which present themselves at unexpected moments and which are typically outside the normal course of business. Industry aims to unexploited opportunities. Some reserves of money is always essential to enable the industry to take advantage of:

- (i) An opportunity to purchase raw materials at a reduce on payment of immediate cash;
- (ii) A chance to speculate on interest rate movements by buying securities when interest refers are expected to decline;
- (iii) Decay purchase of raw materials on the anticipation of decline in prices; and
- (iv) To make purchase at favorable prices.

6.6: CASH PLANNING AND CONTROL:-

Efficiency of cash management in a business enterprise depends upon judicious planning and control of cash inflows and outflows. The planning and control of cash improves availability to cash and enables on obligation to cut down the balances needed to sustain any given level of operations. According to the national association of accounts of U.S.A.¹⁹ American Corporation employed five techniques for planning and controlling there

19. National Association of Accountants, New York "Cash flows analysis of managerial control." Research Report No. 38, Oct. 15, 1961.

cash and near cash reserves;

- (i) Centralization of cash function;
- (ii) Regulation of cash flows;
- (iii) Maximizing cash availability;
- (iv) Determination of optimum cash balances, and
- (v) Investment of short term excessive funds;

Exhibit: 6.1 Shows the volume of cash in Reliance Industry Ltd.

(figure in crores)

Year	Cash	Cash Indices (Base Year 1990-91=100)
1990-91	4.04	100.00
1991-92	7.53	186.39
1992-93	50.57	1251.73
1993-94	9.79	242.33
1994-95	36.67	907.67
1995-96	155.53	3849.75
1996-97	86.37	2137.87
1997-98	213.35	5280.94
1998-99	489.76	12122.77
1999-2000	108.15	2676.98
2000-2001	100.63	2490.84
2001-2002	1760.71	43581.93

Source:- Bombay Stock Exchange Official Directory annual report and accounts.

The volume of cash Reliance Ind. Ltd. has been analyzed of follows:

The exhibit 6.1 indicates that the volume of cash held by Reliance Industries Ltd. had increasing and fluctuating trend throughout the period of the study. The absolute figure of cash volume was Rs. 4.04 crores in 1990-91 which drastically increased to Rs. 7.53 crores by 1991-92. The trend percentage of volume of cash volume increased from 100.00 to 186.38 percentage which is more than approx two times higher than the base years figure. In the 1992-93 the cash increase in 50.57 crores. But, the cash volume of Reliance Industry Ltd. has decreased to Rs. 9.79 crores in 1993-94 due to purchase heavy plants and machinery to grow up of production of the industry. During 1995-96 the volume of cash of the industry has remarkably increased to Rs. 155.53 crores which is computed a growth of more than five times in comparison to 1994-95. Further, it has continuously come down from Rs. 86.37 crores. This decreasing trend in volume of cash basically due to the industry has paid its current liabilities through cash. But again year industry increased in cash volume. On the whole, it can be said that the volume of cash held by corporation increased as the quantum of business increased.

6.7 COMPOSITION OF CASH:-

The composition of cash in Reliance Industry Ltd. concluded cash in hand and bank balances. The cash and bank balances of the Reliance Industries Ltd. are varying year to year over the study period which is presented by the graphical method is as follows:

GRAPHICAL PRESENTATION OF THE VOLUME OF CASH OF RELIANCE INDUSTRIES LIMITED

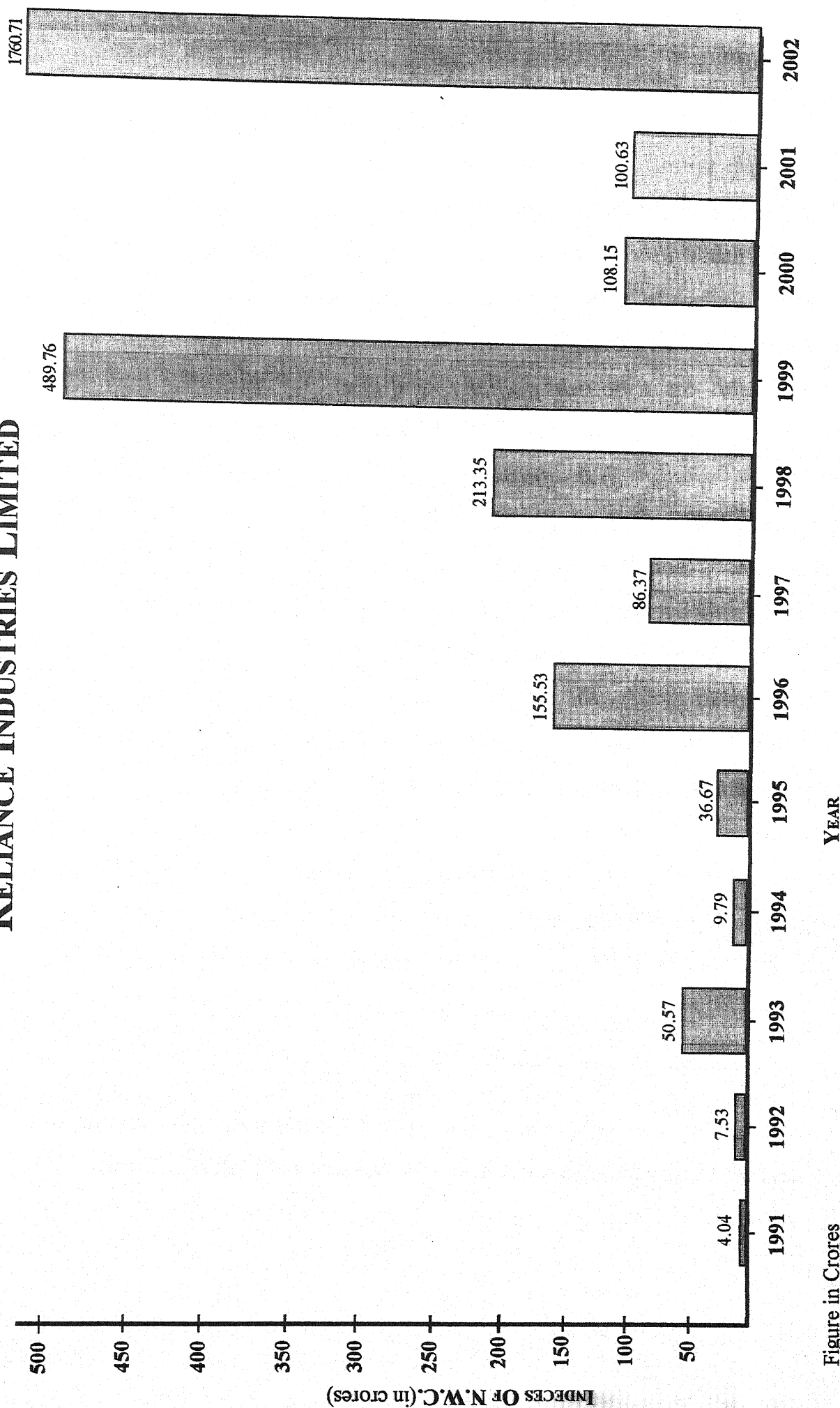


Figure in Crores

6.8 ADEQUACY OF CASH:-

Every business concern is expected to keep adequate cash balance to met its daily operational requirements, as also continuously maintain its liquidity and solvency of which things the every existence of an enterprise. The computation of various ratios have been suggested to find out the liquidity and solvency position of the business enterprise²⁰ of these two very popular ones are related to computation of the current and quick ratio.

In planning the management of cash, The two objects (i)

Liquidity and (ii) Profitability are in mind. Through the cash balance must be adequate to meet current obligations in the right time, a long cash reserve may be wasteful since the cash may better employed else where. But the loss of liquidity also cause the problem of profitability of the concern may not only loss cash discounts but also fail to have better purchase terms for the suppliers.

Professor James E Walter ²¹ has proposed that instead of matching current assets with current liabilities, i.e. current ratio or quick assets with current liabilities, i.e. quick ratio, better results can be obtained by matching current obligations with the net flows. In a going current net cash flows are more important since they are flows, where as current liabilities only indicate the outstanding obligation, on a particular

20. Brigham, Eugene F. and Risks r. Brace (ed.) Reading in Essentials of Managerial Finance, Holt Rinehart and Wiston, U.S.A., 1968, Ed. P.P. 32.33.

21. James, E. Walter: "Determination of Technical Solvency", Journal of Business, Vol. 30 (Jan. 1957) P.P. 30-43.

date which are continuously being replaced. In this context he has also suggested the computation of coverage of current liabilities ratio, should also be analyzed to draw conclusion about the adequacy of cash in relation to liquidity and profitability requirements of going concern.

However in an another study,²² a view is held that an business concern, to be actually liquid and solvent, should have or more net cash flows to current liabilities ratio.

6.9 OPERATIONAL ADEQUACY OF CASH:-

The adequacy level of cash defers from industry to industry and concern to concern due to differences in quantum of production, pattern of demand, payment of pay roles, availability of short term, intermediate term and long term credit and increase in the price of raw materials, stores and spares etc. However, James E. Walter,²³ have been observed that a business enterprise should keep its cash and near cash reserves below the requirements of one month; normal expenditure. If cash near cash reserve happen to be more than this limit, it should be taken concluded that excessive cash is being held by the industry. Turnover of cash and cash in term of number of days indicate good results regarding operational adequacy of cash. For this purpose turnover of cash ratio has been calculated by dividing figure of total operating expenses by cash and

22. R.K. Mishra, "Problems of Working Capital" Somiya Publications Pvt. Ltd. Bombay 1975, P. 134.

23. James E. Walter, "Determination of Technical Solvency", journal of Business, vol. 30 (Jan. 1957) P. 132.

bank balance. Cash in terms of number of days, has also been calculated by dividing 360 days (in a year) by cash turn over ratio.

6.10 CONTROL OF CASH FLOWS:-

The supreme object of the cash management from the stand point of increasing return on investment is to economic on the cash holding without impairing the overall liquidity needs of the industry. This can be done by keeping a tight control over cash flows. The following ratios have been discussed in this regard.

- (i) Cash to total current assets ratio;
- (ii) Cash to sales ratio; and
- (iii) Cash to current liabilities or cash position ratio.

6.10.1: CASH TO TOTAL CURRENT ASSETS RATIO:-

The ideal cash balance in a business concern affects profitability of a concern and also include the cost of retaining it. In an inflationary position cash loses its purchasing power over the time period. The percentage of cash to current assets reveals the level of cash maintained by the concern, and it directly affects the profitability of the business concern. The lower ratio, greater may be the profitability of the business concern. A decreasing trend in this ratio through of the time indicates a tighter control of cash where as an increasing trend reveals a sluggish control over cash resources.²⁴ It is too difficult to lay down any standard norm in this

24. Agarwal, N. K., "Management of Working Capital", Op. cit. P.30.

regard. The sufficiency of cash regarding other components of current assets can be finding only from experience. However, in the comfortably financed business it will properly run not less than 5 to 10 percent of current assets. Since current liabilities are not expected to exceed one and half of the current assets and cash percentage should not run under ten to twenty percentage of during the same period.²⁵

Once the debtors and cash are taken together vis-a-vis the total current assets. In this regard, it may be expressed in a general way that cash and debtors together should be 50 percent and stock and other assets should be remaining 50 percentages of the total current assets. Therefore, cash and debtors should look after the requirements of business operations as well as a part of current obligations. Moreover, the other part would be met from inventory and other current assets if any.

25. Gutam, H. G. and Dougall, H.O., "Corporate Financial Policy", 4th Edition, Prentice Hall of India (P) Ltd., New Delhi, P.P. 84-85.

Exhibit: 6.2 PERCENTAGE OF CASH TO CURRENT ASSETS RATIO:-

(figure in crores)

Year	Cash	Current Assets	Percentage
1990-91	4.04	116.49	3.47
1991-92	7.53	153.48	4.91
1992-93	50.57	251.70	20.09
1993-94	9.79	366.02	2.67
1994-95	36.67	441.21	8.31
1995-96	155.53	465.33	33.42
1996-97	86.37	449.32	19.22
1997-98	213.35	580.47	36.75
1998-99	489.76	940.90	54.12
1999-2000	108.15	1067.45	10.13
2000-2001	100.63	2299.85	4.38
2001-2002	1760.71	4974.07	35.40

Cash to current assets ratio=(Cash / current assets) x 1000

Source:- Bombay stock exchange official directory.

The exhibit 6.2 shows the cash to current assets ratio in the Reliance Industry since 1990-91 to 1999-2000. It is evident that the percentage of volume of cash to current assets ratio registering a fluctuating trend throughout the period under study. It has fluctuating from 10.13 percentages in 1999-2000 to 3.47 percentage in 1985-86. In other words, it is concluded that the volume of cash held by the Reliance Industry under the study period had a fluctuating trend over the period under study, which reveals the deficiency in volume of cash in relation to the total current assets requirement of the Reliance Industry Ltd.

Exhibit:- 6.2 (A) :Shows the percentage of cash to current assets ratio of selected textile industries :-

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Cash	Current Assets	Ratio %	Cash	Current Assets	Ratio %	Cash	Current Assets	Ratio %	Cash	Current Assets	Ratio %	Cash	Current Assets	Ratio %
1990-1991	0.88	22.15	3.97	0.26	22.95	1.13	1.29	84.52	1.53	1.23	13.57	9.06	4.04	116.49	3.47
1991-1992	1.13	28.63	3.95	0.09	24.67	0.36	6.75	88.43	7.63	0.93	15.00	6.20	7.53	153.48	4.91
1992-1993	1.83	37.43	4.89	0.26	23.33	1.11	6.61	120.99	5.46	0.78	16.88	4.62	50.57	251.70	20.09
1993-1994	1.33	43.3	3.07	0.40	25.21	1.58	1.01	115.03	0.87	0.55	18.92	2.90	9.79	366.02	2.67
1994-1995	2.55	67.13	3.80	0.40	24.42	1.63	0.82	178.58	0.45	0.81	21.81	3.71	36.67	441.21	8.31
1995-1996	2.99	85.64	3.49	0.45	28.51	1.57	1.09	199.45	0.54	0.91	19.04	4.77	155.53	465.33	33.42
1996-1997	3.10	97.98	3.16	0.44	26.01	1.69	1.79	191.04	0.93	0.69	16.40	4.20	86.37	449.32	19.22
1997-1998	4.42	91.83	4.81	1.06	24.27	4.36	3.24	206.66	1.56	0.94	17.36	5.41	213.35	580.47	36.75
1998-1999	3.95	93.93	4.21	0.82	24.07	3.40	2.91	200.62	1.45	0.77	16.98	4.53	489.76	904.90	54.12
1999-2000	5.18	85.35	6.07	0.64	22.94	2.78	5.67	217.75	2.60		18.69		108.15	1067.45	10.13

Cash to current assets ratio:- (Cash / Current assets) x 100

source:- Bombay Stock Exchange Official Directory

6.10.2 CASH TO SALES RATIO:-

Cash to sales ratio is one of the important ratio of controlling of cash. "The increase is sales generally associated with larger bank balances."²⁶ While the growth of which will decrease as the size of business increase.²⁷ The analysis of cash to sales ratio will reveals a deep in sight in to cash balances held by the business concerns. The cash to sales ratio in Reliance Industry for the study period 1990-91 to 1999-00 has been presented in the exhibit 6.3.

Exhibit :- 6.3 PERCENTAGE OF CASH TO SALES RATIO OF RELIANCE INDUSTRIES Ltd.

(Fig. in crores)

Year	Cash	Sales	Percentage
1990-91	4.04	210.3	1.92
1991-92	7.53	230.17	3.27
1992-93	50.57	410.62	12.32
1993-94	9.79	534.51	1.83
1994-95	36.67	701.9	5.22
1995-96	155.53	778.63	19.97
1996-97	86.37	873.03	9.89
1997-98	213.35	1340.37	15.92
1998-99	489.76	1455.32	33.65
1999-00	108.15	2030.13	5.32
2000-01	100.63	20441.35	0.49
2001-02	1760.71	42088.9	4.18

Source :- Annual Reports & Account

Cash to cash sales ratio = (Cash /Sales) x 100

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- 26- Sangan, John, "Towards a Theory of working capital management" The journal of finance, vol. x, May 1955.
- 27- Willard Caslet T. "The usefulness of a transaction demands and Models, A new interpretation, The journal of finance, vol. xxiv Dec. 1969, P.483.

Exhibit:- 6.3 (A):Shows the percentage of cash to sales ratio of selected textile industries :-

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Cash	Sales	Ratio %	Cash	Sales	Ratio %	Cash	Sales	Ratio %	Cash	Sales	Ratio %	Cash	Sales	Ratio %
1990-1991	0.88	42.58	2.07	0.26	50.07	0.52	1.29	123.05	1.05	1.23	23.76	5.17	4.04	210.3	1.92
1991-1992	1.13	46.87	2.41	0.29	56.25	0.16	6.75	147.25	4.58	0.93	24.12	3.85	7.53	230.17	3.27
1992-1993	1.83	51.18	3.57	0.26	57.07	0.46	6.61	174.8	3.78	0.78	31.01	2.51	50.57	410.62	12.32
1993-1994	1.33	58.14	2.29	0.40	53.69	0.74	1.01	220.63	0.45	0.55	51.95	1.05	9.79	534.51	1.83
1994-1995	2.55	71.49	3.57	0.40	36.8	1.03	0.82	240.11	0.34	0.81	43.65	1.85	36.67	701.9	5.22
1995-1996	2.99	89.18	3.35	0.45	60.39	0.74	1.09	320.54	0.34	0.91	39.07	2.32	155.53	778.63	19.97
1996-1997	3.10	97.53	3.18	0.44	53.45	0.82	1.79	360.4	0.49	0.69	38.97	1.77	86.37	873.03	9.89
1997-1998	4.42	119.29	3.7	1.06	72.52	1.46	3.24	350.13	0.92	0.94	38.18	2.46	213.35	1340.37	15.92
1998-1999	3.95	128.21	3.08	0.82	75.67	1.08	2.91	433.99	0.67	0.77	38.44	2	489.76	1455.32	33.65
1999-2000	5.18	133.82	3.87	0.64	93.2	0.68	5.67	499.29	1.13		40.56		108.15	2030.13	5.32

The percentage of cash to sales ratio = (Cash / Sales) x 100

Source:- Bombay Stock Exchange Official Directory

It is obviously stated from the exhibit 6.3 that the ratio of cash to sales in Reliance industries has declining trend throughout the period under study. It was computed 1.92 in 1990-91, which slightly increase 3.27 in 1991-92. Again it was decrease 1.83 in 1993-94 and again increases 33.65 in 1998-99. It is observed from the analysis of cash to sales ratio in Reliance Industry that a significant portion of cash balances remained unused.

6.10.3 CASH POSITION RATIO :-

It may be defined as the ratio of cash to current liabilities. This is another way of looking at the efforts of the company to control cash balances. It analysis the level of liquid resources in relation to current obligations. The cash position ratio in the Reliance Industry Ltd. for the period of study has been presented in exhibit 6.4.

Exhibit 6.4 :- SHOWS THE PERCENTAGE OF CASH TO CURRENT LIABILITIES

(figure in crores)

Year	Cash	Current Liabilities	Percentage
1990-91	4.04	82.99	4.87
1991-92	7.53	121.7	6.19
1992-93	50.57	127.66	39.61
1993-94	9.79	128.49	7.62
1994-95	36.67	194.73	18.83
1995-96	155.53	257.05	60.51
1996-97	86.37	399.76	21.61
1997-98	213.35	422.39	50.51
1998-99	489.76	542.84	90.22
1999-00	108.15	529.3	20.43

Cash to current Liabilities ratio = (cash/current liabilities) x 100

Source :- Annual Reports and accounts

It is evident from the exhibit that the cash position ratio in Reliance Industry had a fluctuating trend throughout the period covered under the study. It varied between 1.32 percent in 1990-92 and 33.43 in 1992-93. In other words the ratio of net cash flow to current liabilities was 4.86 percent in 1990-91 which slightly improved to 39.61 percent in 1992-93. While, during 1993-94 it has come down 7.61 percent. Therefore it has registering a remarkable growth as 60.50 percent in 1995-96 which has came down from 21.60 percent in 1996-97 and increase in 1998-99 in

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Exhibit:- 6.4 (A): Shows the percentage of cash to current liabilities ratio of selected textile industries :-

(figure in crores)

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Cash	Current Liabilities	Ratio %	Cash	Current Liabilities	Ratio %	Cash	Current Liabilities	Ratio %	Cash	Current Liabilities	Ratio %	Cash	Current Liabilities	Ratio
1990-1991	0.88	17.21	5.11	0.26	13.41	1.93	1.29	25.45	5.06	1.23	11.38	10.80	4.04	82.99	4.86
1991-1992	1.13	20.44	5.52	0.09	14.85	0.60	6.75	27.03	24.97	0.93	13.16	7.06	7.53	121.70	6.18
1992-1993	1.83	28.90	6.33	0.26	12.06	2.15	6.61	37.41	17.66	0.78	14.45	5.39	50.57	127.66	39.61
1993-1994	1.33	31.05	4.28	0.40	12.5	3.20	1.01	62.25	1.62	0.55	15.60	3.52	9.79	128.49	7.61
1994-1995	2.55	50.04	5.09	0.40	17.28	2.31	0.82	66.98	1.22	0.81	16.80	4.82	36.67	194.73	18.83
1995-1996	2.99	76.15	3.92	0.45	16.96	2.65	1.09	91.73	1.18	0.91	15.86	5.73	155.53	257.05	60.50
1996-1997	3.10	60.82	5.09	0.44	12.83	3.42	1.79	84.98	2.10	0.69	14.75	4.67	86.37	399.76	21.60
1997-1998	4.42	70.38	6.28	1.06	12.48	8.49	3.24	116.33	2.78	0.94	16.16	5.81	213.35	422.39	50.51
1998-1999	3.95	58.15	6.79	0.82	10.77	7.61	2.91	126.29	2.30	0.77	18.46	4.17	489.76	542.84	90.22
1999-2000	5.18	53.61	9.66	0.64	13.51	4.73	5.67	102.03	5.55		18.16		108.15	529.30	20.43

The percentage of cash to current liabilities = (Cash / Current Liabilities) x 100

Source:- Bombay Stock Exchange Official Directory

90.22 percent and came down from 20.43 percent in 1999-2000 respectively.

After analyzing the ratio net cash flow to current liabilities of Reliance Industry. It is covered that it has a tighter liquidity position during the period under review.

After the observation, exhibit No. 6.4(A) which is related to the percentage of cash to current liabilities various textile industries of India including Reliance Industries Ltd. The observation and the conclusion it quite clear that the various industries head of fluctuating trend throughout the period covered under the study. In case of Raymond Ltd. it is 5.11% in 1990-91 while it is the highest in 1999-2000 by the margin of 4.55% it is lowest in 1995-96 3.92% hence the difference the lowest and highest percentage of cash to current liabilities of Raymond Ltd. 5.74 under the period of my study. After analyzing the ratio be can easily say that the remand Ltd. has a titer liquidity position during the period under review. Same in the case of century Enka Ltd. The ratio of cash current liabilities 1.93% in 1991 and 4.73% in 1999-2000 but the ratio is highest in 1997-98 at 8.49 and lowest in 1991-92 at the level of 0.60% hence the difference the highest an lowest ratio 7.89% the percent of cash to current liabilities ratio is century Enka Ltd. it also shows that the liquidity position of a company have a quite tite during the period of my study. But in the case of Grasim industry Ltd. the percentage of cash to current liabilities ratio has a remarkable growth in 1991-92 and it stands 24.97% while the lowest ratio in the Grasim Industry Ltd. is only 1.18% hence the range of cash to current liabilities ratio is 23.7% It also shows that the liquidity position is not much more defer in comparison of other selected textile companies. In the case of Modipan Ltd. cash to current liabilities ratio

10.80 in the beginning period of my study and it is only 4.17% in 1998-99 hence the difference between two extreme limit is 6.63% in the case of Reliance industries Ltd. the under partition has been already made in exhibit 6.4 at the end be concluded that all the selected textile company in my study has more current liabilities than the cash balances. Show it indicates about a titer liquidity position of all these company during the period under review.

6.11: COVERAGE OF CURRENT LIABILITIES

RATIO :-

This Ratio establishes the relationship between net profit and current liabilities in the industry. Exhibit 6.5 reveals the coverage of current liabilities in Reliance industry. It is evident from the exhibit that the ratio of net profit to current liabilities was 7.24 in 1991-92 which remarkably increased to 54.68 in 1994-95. Again, it has come down 30.63 percent in 1998-99.

It is concluded that the coverage of current liabilities ratio in Reliance Industry has in increasing and some time deceasing trend which indicates that the company has satisfactory position to meet it current obligations.

Exhibit : 6.5 : Coverage of current liabilities ratio of Reliance Industries Ltd.

(Fig. In crores)

Year	Profit	Current Liabilities	Ratio
1990-91	12.29	82.99	14.8
1991-92	8.82	121.7	7.24
1992-93	32.17	127.66	25.19
1993-94	57.54	128.49	44.78
1994-95	106.48	194.73	54.68
1995-96	130.52	257.05	50.77
1996-97	132.27	399.76	33.08
1997-98	150.33	422.39	35.59
1998-99	166.28	542.84	30.63
1999-00	235.7	529.3	44.53

Coverage current liabilities Ratio = (Net Profit /Current Liabilities) x 100

Sources :- Bombay stock exchange official directory

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Exhibit:- 6.5 (A): Shows the coverage of current liabilities ratio of selected textile industries :-

YEAR	RAYMOND LTD.			CENTURY ENKA LTD.			GRASIM INDUSTRIES LTD.			MODIPAN LTD.			RELIANCE INDUSTRY LTD.		
	Profit	Current Liabilities	Ratio %	Profit	Current Liabilities	Ratio %	Profit	Current Liabilities	Ratio %	Profit	Current Liabilities	Ratio %	Profit	Current Liabilities	Ratio %
1990-1991	5.09	17.21	29.57	4.32	13.14	32.87	14.17	25.45	55.67	3.28	11.38	28.82	12.29	82.99	14.80
1991-1992	6.65	20.44	32.53	2.22	14.85	14.94	15.37	27.03	56.86	0.74	13.16	5.62	8.82	121.70	7.24
1992-1993	5.17	28.90	17.88	1.49	12.06	12.35	15.40	37.41	41.16	0.70	14.45	4.84	32.17	127.66	25.19
1993-1994	6.45	31.05	20.77	5.44	12.50	43.52	25.01	62.25	40.17	2.35	15.60	15.06	57.54	128.49	44.78
1994-1995	10.61	50.04	21.20	0.81	17.28	4.68	34.06	66.98	50.85	1.66	16.80	9.88	106.48	194.73	54.68
1995-1996	10.75	76.15	14.11	4.36	16.96	25.70	41.95	91.73	45.73	0.76	15.86	4.79	130.52	257.05	50.77
1996-1997	0.98	60.82	1.61	4.58	12.83	35.69	31.55	84.98	37.12	0.21	14.75	1.42	132.27	399.76	33.08
1997-1998	4.89	70.38	6.94	0.80	12.48	6.41	27.09	116.33	23.28	-1.32	16.16		150.33	422.39	35.59
1998-1999	8.91	58.15	15.32	3.89	10.77	36.11	11.59	126.29	9.17	-2.24	18.46		166.28	542.84	30.63
1999-2000	3.45	53.61	6.43	5.72	13.51	42.33	23.73	102.03	23.25	-1.52	18.16		235.70	529.30	44.53

The coverage of current liabilities ratio = (Net Profit / Current Liabilities) x 100

Source:- Bombay Stock Exchange Official Directory

The coverage of current liabilities ratio of selected textile industry shows a different ratio with each other at the time of beginning period of my research period i.e. in 1991 Raymond Ltd. has 29.57 percent coverage of current liabilities ratio while it is 32.87% and 55.67 in the case of currency Enka Ltd. and Grasim Industries Ltd. respectively in that year it is only 20.82 percent in the case of Modipan Ltd. while it is lowest in the case of Reliance Industry Ltd. with 14.80 percent in that year in the year 1999-2000 the coverage of current liabilities Ltd. of Raymond Ltd., Century Enka Ltd., Grasim Industry Ltd., Modipan Ltd. and Reliance Industry Ltd. is 6.43, 42.33, 23.25, 44.53 percent respectively. In the case of Raymond Ltd. the lowest coverage of current liabilities ratio only 1.61 percent. While it is highest with 32.52 percent. Thus the range of the ratio is 30.91. In the case of Century Enka Ltd. the coverage of current liabilities ratio is lowest in the year 1994-95 with 4.68 percent and it is highest in the year 1993-94 with 43.52 percent hence the range of ratio is 38.84. In the case of Grasim Industry Ltd. the coverage of current liabilities ratio is 9.17 percent at lower level in the year of 1998-99. While it is higher at the percentage of 56.86 in 1991-92. In the range of ratio 47.69. In the case of Modipan Ltd. the lower ratio is 1.42 percent at 1996-97 and highest in 28.82 percent at 1990-91. The range of ratio is 27.40. Explain of Reliance Industry Ltd. is already in exhibit 6.5.

It is concluded that the trend and the range of coverage of current liabilities ratio seems to be satisfactory in regarding the Reliance Industry Ltd.

AN OVERVIEW ABOUT CASH MANAGEMENT :-

Cash provides liquidity but it doesn't pay interest. Security pay interest but he can't use to buy things so as a financial manager he wants to hold cash balance up to the point where the *marginal value of liquidity is equal to the value of the interest foregone*. Cash is just one of the raw materials that he needs to do business. It is expensive keeping your capital tied up in large inventory of raw materials, when it could be earning interest it is also expensive keeping placing many small orders therefore he needs to strike a balance between holding too large an inventory of cash "(and losing interest in money)" and making too many small adjustments to over inventory and incurring additional administrative transaction cost." If interest rates are high he wants to hold relatively small inventories of cash. If over cash needs are variable and over cost are high then he wants to hold relatively large inventory. He might add that he has the alternative of borrowing to cover a cash deficiency. Again he faces a trade off since banks charge a high interest rate on borrowing he wants to keep sufficiently large liquid funds so that he doesn't need to keep borrowings on the other hand by having large liquid balances he is not earning the maximum return on over cash balances. The cash shown in the industry ledger is not the same as the available balance in the bank account of that industry. The difference is the net float when industry has written a large number of checks a waiting clearance the available will be larger than the ledger balance. On the other hand industry has just deposited a large number of checks which have not yet been collected the bank the available balance will be smaller if a financial manager can predict how long it will take checks to clear you may be able to pay the float and get by on a smaller

cash balances. We can also manage the float by speeding up collections and slowing down payments. One-way to speed collection is to use concentration banking. Customers make payment to a regional office, which then pays the check in to a local bank account. Surplus funds are transfer from the local account to a concentration bank. An alternative technique is lock box banking. In this case, customers send their payments to a local post office box. A local bank empties the box at regular intervals and clears the check concentration, lock box banking reduce mailing time, and time required the clear check. Large values are payment usually made electronically. In the united state to large value systems FEDWARE (for dollar payments with in the country) CHIPS (for cross broker payments) Bulk payment such as dividend are usually mode by means of automatic clearing house (A.C.H.) system.²⁸

Bank provide many services they handle checks, manage lock boxes provide advice obtain reference and so on. Industry/company/firm either pay cash for the servicing or pay by maintaining sufficient cash balances with the bank.

In many cases we shall want to keep some what larger balances than are needed to pay for the tengival services on reason is that the bank may be valuable source of ideas and business connections another reason is that we may use the bank as a source of short terms funds. Leaving

28. "Financial planning and short term financial management" by Richard A. Brealey, Tata Graw hill publishing company Ltd. New Delhi.

ideal cash at your bank may be implicit compensation for the willingness of the bank to stand ready to advance credit when needed.

At last a large cash balance may there for be good insurance against a rainy day.

INTERNATIONAL CASH MANAGEMENT :-

Cash management in domestic firm is child's play compared with that in large multinational corporations operating in dozens of countries, each with its own currency, banking system and legal structure.

A single, centralized cash management system is an unattainable ideal for these companies, although they are edging toward it. For example suppose that you are the treasure of a large multinational company with operations throughout Europe. You could allow the separate business to manage their own cash but that would be costly and would almost certainly result in each one accumulating little hoards of cash. The solution is to set up a regional system. In this cash the company establishes a local concentration account with a bank in each country.

Then any surplus cash is swept daily in to central multi currency accounts in London or another European banking central. Multicurrency accounts in London or another European banking center. This cash is then invested in marketable securities or used to finance any subsidiaries that have a cash shortage.

Payments also can be made out of the regional center. For example, to pay wages in each European country, The country just needs to send its principal bank a computer file with details of the payments to be made. The bank then finds the least costly way to transfer to cash from the company's central accounts and arrange for the funds to be credited on the correct day to the employees in each country.

Most large multinational have several banks in each country, but the more banks they use, the less control they have over their cash balances. So development of regional cash management systems favors banks that can offer a world wide branch network. These banks also can afford to invest the several billion dollars that are needed to setup computer systems for handling cash payments and receipts in many different countries.



CHAPTER - VII ***Impact of Inflation on
Working capital management***

- 1- Introduction of inflation accounting
- 2- Method of accounting for inflation
- 3- Restatement of income statement & closing
balance sheet.
- 4- Monetary working capital adjustment



7.1: INTRODUCTION OF INFLATION ACCOUNTING:-

Inflation is a general increase in the price of goods and services and decreases in the value of money of a particular country. It is said that in the sector of finance, a rupee today is worth more than a rupee tomorrow and a safe rupee is worth more than a risky rupee. In finance time does have a value if we have a will to pay we would prefer to pay it 30 days from now rather than pay it today. We can use the money for other purpose in the mean while conversely, if someone owns us money, we would be rather paid now than received the same amount later.

This is why we should aware with the inflation accounting however in the principal of money measurement application of money unit remains same over a period of time so the Implicit assumption that the purchasing power of money remains same but there is a changes in purchasing power of money that changes is significant from the point of view of users of financial information, hence need not be accounted for to finished accounting reports. Purchasing power of money and the changes of price level are inversely correlated each other so there is a lot of impact of increase in price level on financial statements of company to make adjustment in traditional financial statements for increase in general price level resulting in decrease in purchasing power of money. For this a company should prepare financial statements on the basis of current cost instead of historical cost.

DRAW BACKS HISTORICAL OR TRADITIONAL COST ACCOUNTING:-

The financial accounting based on generally accepted accounting principles is basically historical or post mortem of accounting. It ascertain value of resources consumed for matching it with revenue of the period on the basis of its acquisition cost. As a result it suffers from the following drawbacks.

Maintenance of capital:- Increase in capital after ensuring maintenance of capital is termed as profit. Historical accounting ensures maintenance of capital in financial (or money) terms irrespective of the purchasing power of money. In case of increase in price level, even if the capital is maintained in money terms, erosion in total purchasing power takes place. Infact, under historical system, by maintaining capital intact in money terms only and not in real terms, a part of capital is reported as parts of profit of the year, which is a dangerous trend from long term point of view. Thus it is imperative to maintain capital intact in real terms.

Understatement of assets:- For accounting, cost principle is used which records of an assets at its original cost less depreciation. However depreciated value of assets does not represent the current value of the asset and thus, the true and fair view of the financial position of the business.

Overstatement of profits:- The cost of operation based on historical cost when matched with the current period revenue results in

overstatement of profits. This is particularly true in case of depreciation which is based on the original cost of assets and not on the current cost of using resources of the business.

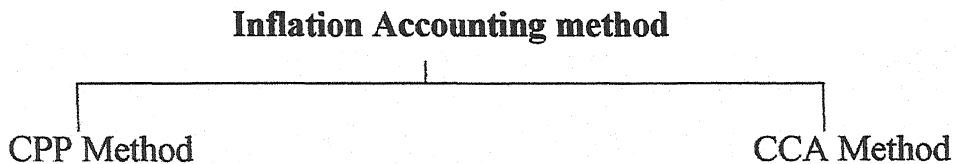
Comparisons not valid:- Accounting figures resume significant only when these are compared with other figures. Comparisons under cross section analysis as well as time series analysis are not valid in case there is increase in price level. Financial statements of the business enterprise over a period of time or a different business enterprises at a point of time cannot be compared because the money unit used represents different purchasing power at different places and time.

Strain on liquid funds:- Due to under provision of depreciation and historical cost of resources consumed, reported profit figure is exaggerated. Due to increase in reported accounting profit, there is more outflow of funds in the form of taxes, dividend, bonus to workers etc. It puts strain on liquid resources of the business.

Due to above mentioned limitations of historical accounting; it has lost much of its relevance for financial reporting. The professional accounting bodies all over the world are aware of it and research is going on all over the world to find ways and means of incorporating the effect of price level changes in accounting reports.

7.2: METHODS OF ACCOUNTING FOR INFLATION:-

There are two methods to show the impact the inflation on the financial statement.



(i) C.P.P. :-

It is based on historical measurement of transaction but it replaces traditional monetary unit of measurement with purchasing power unit of measuring. It focuses on maintenance of general purchasing power of capital employed in the business and that's why it advocates use of general price index making for adjustment. It restrict itself to historical cost but adjust it for decrease of purchasing power of money to coverage conventional financial investment based of historical cost into current purchasing power adjusted financial statements general price indices are used all times of financial statement and balance sheet are reformed on the basis of price index at the end of the year for this process figure of income statement and balance sheet are multiplied by the price index at the end of the year and divided by the index on the date on the transacting.

(ii) C.C.A. :-

Methods replace historical cost used of current cost basis measurement. This method focuses on the current cost of net assets of the company and advocating the use of specific price index for adjusting specific items.

7.3: RESTATEMENT OF INCOME STATEMENT AND CLOSING BALANCE SHEET:-

RRESTATEMENT OF INCOME STATEMENT:-

To convert conventional historical income statement into CPP adjusted statement all items are to be restated. Items like sales, expenses etc. are unless otherwise given are assumed to be evenly spread over the period involved and converted on the basis of average index. Depreciation is converted on the basis of index on the date of acquisition of assets. Items about which specific information is given are converted on that basis. For example, dividend period on the last day of the accounting year is to be restated on the basis of index on the last day i.e. closing index and thus needs no restatement as the multiplier is one. Cost of goods sold, however is to be restated keeping in mind the method of inventory valuation applied.

Calculation of restated stock, purchases and cost of goods sold: for the opening stock is restated on the basis of opening index, unless otherwise provided in the question. Purchases made during the year are converted on the basis of price index on the date of purchase. If different lots are purchased during the year. The relevant indices on the dates of

purchases should be used for conversion. Add restated opening stock and purchases to be adjusted cost of goods available during the period. From this, deduct the value of closing stock, the method of inventory valuation applied should be kept in mind. For example, use of FIFO means that the stock left is out of recent purchases.

Calculation of CPP adjusted net profit: After restating all debit and credit items appearing in historical income statement calculate, the net balance. Then adjust the amount of net monetary gain (or loss) ascertained earlier to arrive at the figure of CPP adjusted net profit (or loss).

In the case of Reliance Industry Limited, the figures of income statements are available but the relative price indexes are not available so the restatement of income statement of Reliance Industry Limited is not possible.

But we are able to understand that inflation affects the financial accounts both the income statement and the closing balance sheet.

From a example we are to able to compute historical and C.P.P. adjusted cost of goods sold by the following example.

Let opening stock be	Rs. 50000	(Price index 100)
Let purchases I	Rs. 50000	(Price index 125)
And II	Rs. 60000	(Price index 150)
Let closing stock	Rs. 70000	(Price index 200)

By using FIFO method the calculation of cost of goods sold calculated below:-

Calculation of cost Goods sold

Particular	Historical	Adjusted	Adjusted
Opening stock	50000	$\times 200/100$	100000
Add: Purchase: I	50000	$\times 200/125$	80000
Purchase II	60000	$\times 200/150$	80000
Total	160000		260000
Less: Closing stock	60000	$\times 200/150$	30000
	+		+
	10000	$\times 200/125$	16000
Cost of Goods Sold	90000		164000

Source:- Figures Imaginary.

RESTATEMENT OF CLOSING BALANCE SHEET:-

As monetary assets and liabilities representing fixed money value are already in terms of year and index, their restatement is not required. Non-monetary assets except inventory are restated keeping in mind, the index on the date of acquisition of those assets. Restatement of closing inventory is as per discussion on calculation of cost of goods sold in restatement of income statement. After restatement of assets and liabilities, the balancing figure represents owner's funds, comprising of capital contribution and reserves.

Treatment of owner's funds: These are three ways of dealing with it as (i) owners funds taken as balancing figure (ii) Keeping in mind the restated profit and information about additional capital and drawing, reserves and surplus is taken as balancing figures. (iii) Even reserve can

be adjusted. Then balancing figure represents accumulated monetary gain (or loss). It is worth nothing that balancing figure of owner's fund or reserves and surplus or accumulated monetary gain/loss can be can be verified by restating all assets and liabilities of the opening balance sheet and taking balancing figures capital in the beginning.

In the case of Reliance Industry the affect of inflation, accounting must be shown in the financial accounts.

By taking a example from the following data we prepare conventional and G.P.P. (General Purchasing Power) adjusted financial statement.

Balance Sheet as at 1 July 2001

<i>Liabilities</i>	<i>Amount</i>	<i>Assets</i>	<i>Amount</i>
Capital	75000	Cash in hand	30000
Current Liabilities	15000	Building	60000
	90000		90000

During the year 2000-2001, the net cash inflow of Rs. 7,500 was accounted by the cash sales revenue of Rs. 57500 and cost of sales of Rs. 40000 and decrease in current liabilities of Rs. 10000. Description on building was price index. Assume closing stock in nil.

Price Index were as under :

01-08-2000	150	At the time of purchase of building	100
31-07-2001	200		

Computation of Purchasing Power Gain/Loss

	Actual Amount	Adjustment	Adjusted Amount
Monetary Assets :			
Cash in the beginning	30000	x200/150	40000
Add : Increase during the year	7500	x200/175	8571
	<u>37500</u>		<u>48571</u>
Less : Actual Purchasing Power Loss			<u>37500</u>
			<u>11071</u>
Monetary Liabilities			
Current Liabilities	15000	x200/150	20000
Decrease during the year	<u>(10000)</u>	x200/175	<u>(11,429)</u>
Less : Actual liabilities	5000		8571
			<u>5000</u>
Purchasing Power Gain			<u>3571</u>

Net Purchasing Power Loss 11071-3571 = Rs. 7500

Income Statement for the year ending 31-7-2001

	Based on Historical Cost	Adjustment	GPP Adjusted
Sales	57500	x200/175	65714
Less : Purchase	<u>(40000)</u>	x 200/175	<u>(45714)</u>
Gross Profit	17500		20000
Less: Depreciation on Building	<u>(5000)</u>	x200/100	<u>(10000)</u>
Net Profit	12500		10000
		Less:	
		Net Monetary Loss	<u>(7500)</u>
		Net Profit	2500

Balance Sheet (based on historical cost) as at 31-7-2001

<i>Liabilities</i>	<i>Amount</i>	<i>Assets</i>	<i>Amount</i>
<i>Capital</i> 75000		<i>Cash</i>	37500
<i>Add : Net Profit</i> 12500	87500	<i>Building</i> 60000	
<i>Current Liabilities</i>	5000	<i>Less : Depreciation</i> 5000	55000
	92500		92500

Dr.	Cash Account		Cr.
	Rs.		Rs.
To Balance b/d	30000	By Current Liabilities (creditors)	50000
To Sales A/c	57500	(or purchase)	
		By Balance c/d	37500
	87500		87500

Balance Sheet (in terms of purchasing power on (31-7-2001) as at 31-7-2001			
<i>Liabilities</i>	<i>Amount</i>	<i>Assets</i>	<i>Amount</i>
<i>Opening Capital (b.f.)</i> 140000		<i>Cash</i>	37500
<i>Add : Net Profit (Adjusted)</i> 2500	142500	<i>Building</i> 55000x200/100	110000
<i>Current Liabilities</i>	5000	<i>Less : Depreciation</i>	
	147500		147500

Rs. 140000 figure of opening capital can be verified by restating opening balance sheet as under :

Balance Sheet (in terms of purchasing power on 31-7-2001) as at 1-8-2000

<i>Liabilities</i>	<i>Amount</i>	<i>Assets</i>	<i>Amount</i>
<i>Current Liabilities</i> 15000x200/150	20000	<i>Cash</i> 30000x200/150	40000
<i>Capital (Balancing Figure)</i>	140000	<i>Building</i> 60000x200/100	120000
	160000		160000

7.4 MONETARY WORKING CAPITAL

ADJUSTMENT (MWCA) :-

Description adjustment is made to charge current cost of using faded assets to income statement, Similarly, COSA is made to match current cost of goods sold with revenue of the period. Now, MWCA is to be made to ensure that additional MWC required to operate at the same level of business activity, is retained out of funds generated by sales revenue. The adjustment for monetary working capital is done by restating figures on average basis. For example:

Particulars	Historical	Index	Adjustment	Adjusted Value
Operating Debtors	5000	100	x 125/100	6250
Less: Operating Creditors	4000	100	x 125/100	5000
Opening MWC-I	1000	-	-	1250
Closing Debtors	9000	150	x 125/150	7500
Closing Creditors	6000	150	x 125/150	5000
Closing MWC-II	3000			2500
Increase in MWC [II- I]	2000			1250

MWCA = Increase In historical MWC – Increase in current cost MWC

2000-1250 = Rs.750

So, Rs.750 is debited to profit and loss account. However, if MWCA requires that the amount is to be credited to profit & loss account, then, the amount credited to profit and loss account is restricted to COSA.

GEARING ADJUSTMENT: -

Historical profit adjusted for depreciation, cost of sales and net monetary working capital gives current cost operating profit. And ensure maintenance of over all operating capability of the business. Gearing adjustment considers the financing of operating capability by parties other than equity shareholders. To the extent operating assets are not financed by equity share holders total burden of adjustment for current cost should not fall on equity share holders. Hence gearing adjustment is made to ensure that DA, COSA and MWCA are reduced proportionately on the basis of borrowing divided by borrowing *plus Share holders Funds*. Thus, it ensures concentration on share holders share in current cost profits. It is made as follows.

Total Of depreciation		Net Borrowings
Cost of sales and	x	-----
Monetary working		Net Borrowing +
Capital adjustment		Equity shares holder
		Funds.

DEPRECIATION ADJUSTMENT : -

It requires recording of assets at their current replacement cost i.e. current value to the business. Depreciation for the current year is determined on the basis of current cost of the asset. The depreciation adjustment is made for the excess of current cost depreciation over historical cost depreciation.

Backlog Depreciation: - Taking current cost of an asset as base not only affects current year depreciation but also the accumulated depreciation on that asset. It is the different of current cost of accumulated depreciation and historical cost of accumulated depreciation. Thus adjustment for backlog depreciation brings historical cost of accumulated depreciation to current cost level. The depreciation for the year includes depreciation adjustment (for current year) and backlog depreciation.

COST OF SALES ADJUSTMENT (COSA) :-

COSA is made to bring value of goods consumed during the year to its average cost level during the year. For this purpose, closing and opening stock are restated on average basis. For example:

<i>Particulars</i>	<i>Historical Cost</i>	<i>Index</i>	<i>Adjustment</i>	<i>Adjusted/Figure</i>
<i>Opening Stock</i>	200000	100	$\times 120/100$	240000
<i>Purchases</i>	500000	120 (Average)	$\times 120/100$	500000
	700000			740000
<i>Closing Stock</i>	300000	150	$\times 120/150$	240000
<i>Cost of Goods Sold</i>	400000			500000



CHAPTER - VIII

Finding
and
Suggestions



FINDING AND SUGGESTIONS

INTRODUCTION : -

The agricultural are so vital for textile sector has to increase its capacities substantially in the current plan period to need the growing demands from the farm sector. The textile industry of a country is the backbone of economic growth. A close relationship has been found between the level of economic growth and quantum of textile consumption in developed as well as developing countries. Of all the industries investment in this industry provide the maximum stimulus to growth. *As a matter of fact textile industry has the highest forward and backward linkage effects. Through these links it has the potential of being a vital employment grater in the economy.*

One of the basic performance of textile industry by a complex of state factors like, feed stock, norms for capacity utilization and dependent upon the age of plant and feed stock used, retention price formula which is cerucial for arriving at profit of the particular industry concerned, the product mix and technology and process, unless the management quantity under the utilization consequent upon inadequate suppliers from exogenous extent the responsibility for the unsatisfactory performance of the industry. Among the managerial skills which have effected the performance of the industry, working capital management is a vital one.

The structure of working capital in a business concern relates to various elements of current assets and current liabilities.

The main elements of current assets are inventory, receivables, cash and bank balances and other quick resources like short term and temporary investment. While current liabilities include payables, bank over-draft, short-term loans and advances outstanding expenses and provisions. The profitability of the use of working capital depends more on its structure and on the production of various items, of current assets. Normally the level of working capital should not exceed the level of the growth of production of a business from.

A business enterprise should maintain a sound working capital position. It should have adequate working capital to run its business operations. Inadequate working capital means shortage of raw materials and other inputs, resulting in part-time utilization of machinery and ultimately leading to failure of the business and frustration of objectives of the enterprise through lack of funds. Paucity of working capital not only impairs concern, profitability, but also results in production interruption and inefficiency. The importance of adequacy of working capital in a business cannot be over emphasized. To run a business efficiently and smoothly an adequate amount of working capital is very essential. In the absence of this fixed assets can not gainfully be utilised. There are four tests of the working capital policy : (i) level of working capital (ii) Structural health (iii) circulation (iv) Liquidity. Working capital requirements can be determined mainly in two ways viz. (i) Percentage of sales method, (ii) The operational cycle method.

The company has maintained proper records showing full particulars including quantitative details and situation of fixed assets on the basis of information available according to the information published the fixed assets have been physically verified by the management during the year

in a phased periodical manner which in my opinion is reasonable, having regard to the size of the company and nature of the assets. No. material discrepancies were noticed on such verification.

The researcher's study found that the internal audit system of the company is commensurate with the size and nature of its business.

BASIC CONCEPT OF WORKING CAPITAL MANAGEMENT :-

Working capital management usually considered to involve the administration of current assets, viz. cash, marketable securities receivables and inventories and the administration of current liabilities. This type of management has been looked upon as the driving seat of a financial manager. He always need to known when to look for capital funds, how to use them, and how to measure plan and control them. The funds needed for financing the duration of an operation cycle are known as working capital. Working capital is regarded as the life blood and never not of a business firm. There might not be any business firm in the world where besides investment in fixed assets would not be required for carrying on day to day operation of the business.

There are two concepts of working capital gross and Net working capital. The gross working capital refers to the total of all current assets. Net working capital is the excess of current assets over current liabilities. It is the net concept of working capital which has been adopted in the present study.

The operating cycle can be said to at the heart of the need for working capital. The continuing flow from cash to suppliers to

inventory. To accounts receivables and back in to cash is what has been called the operating cycle. According to C.M. Joy the term cycle refers to the length of times necessary to complete the following cycle of events.

- (i) Conversion of cash in to inventory
- (ii) Conversion of inventory in to receivables
- (iii) Conversion of receivables in to cash

The importance of working capital is the lifeblood and the blood that runs through the body corporate is to a large extent borrowed blood. Industrialists keep on living with this frequent blood transfusion little realizing that is also their responsibility to ensure that this blood is kept disease free, there by avoiding chance of ill health. The major portion of a financial manager's time is utilised in the management of working capital. Working capital can be classified under the following heads:-

- (i) Net working capital
- (ii) Gross working capital
- (iii) Permanent working capital
- (iv) Variable working capital
- (v) Balance sheet working capital
- (vi) Cash working capital

The requirement of working capital may differ from business to business, firm to firm and from time to time. The working capital requirements of a are effected by number of factor like (i) nature of business (ii) seasonality of operations (iii) production policy (iv) Conditions of supply (v) Credit policy (vi) Availability of credit (vii) Growth and expansion activities (viii) Price level change (ix) turnover of circulating capital (x) business cycle fluctuations (xi) cash requirements (xii) manufacturing

time (xiii) turnover of inventory (xiv) liquidity and profitability (xv) repayment of ability and other factors.

The working capital management requires the determination of working capital needs the modes of its financing. The determination of the working capital needs and optimization of volume of working capital. Since the working capital refers to the excess of current assets over the current liabilities, the level of current assets as well as current liabilities need be properly ascertained and optimised.

Every business enterprise must hold adequate current assets to conduct to its business efficiently as the excessive current assets adversely effects its profitability and inadequate current assets expose the firm to problem of liquidity. The optimum working capital is thus determined by a trade off between profitability and liquidity. However financial analysis have developed three alternative policies conservative policy it will carry a high level of current assets in relation to sales. If from follow a very aggressive current assets policy, it will carry a low level of current assets in relation to sales. A conservative current assets policy would result in a lower degree of risk a lower amount of expected profitability. An aggressive current assets policy would result in a higher degree of risk and higher level of profitability. A conservative financing policy relies more on long term sources of funds and less on short term sources. An aggressive current assets financing policy. On the other hand, relies more on short term sources of funds.

THE ANALYSIS OF WORKING CAPITAL AND SOLVENCY :-

Working capital a vital and dynamic aspect of financial management, It is regarded that portion of the total capital of a company which is put to a variable operation purpose. Working capital management has acquired paramount importance in the recent past especially with a view of tight and stringent money conditions prevailing in the economy. Working capital management in an integral part of over all financial management and is concerned with problems that arise in attempting to manage the current assets and current liabilities and interrelationship that exist between them.

The finance required to buy raw materials to pay for wages and to meet overhead expenses is known as working capital, working capital is many looked in inventory, debtors and other current assets minus others money locked up with the business in the form of sundry creditors bills payable etc.

In the present study the working capital of textile industries (Reliance Industries) is divided in two parts analysis of working capital and ratio analysis.

Working capital turnover ratio reflects the extent to which a firm is operating on a small or large amount of working capital in relation to sales. This ratio also indicates whether a company is overtrading or under trading. Over trading is indicated by an increase in the amount of sales with out a corresponding increase in the amount of working capital. On the other hand, a very low ratio may be the result of under trading which means more working capital has been invested in the business than

required. Working capital turnover ratio indicates efficient utilization of working capital.

The current ratio indicates the relationship between current assets and current liabilities. The higher the current ratio, the better will be the solvency of a company. Accounting expert are of the view that the value of current assets should be at least double the amount of current liabilities. The current ratio of the Reliance Industry varied between 1.12:1 and 2.85:1. The current ratio of Reliance industry the first three years of the period of study was less than the standard norms 2:1 on the other hand it is also clear that current assets were properly utilized. There after three years higher than the standard norms. But after some year are below the standard norms. And last year in high the standard norms. It is also clear that the current assets were not properly utilized in that condition. It can be said that on whole the current ratio of Reliance industry was satisfactory.

An important question is whether a company's current assets are held in liquid form or not current ratio is not a sufficient indicator of the weakness or soundness the liquidity of a concern and working capital cannot indicate the solvency of the company. Solvency of a concern is better indicated by the quick ratio. It indicates the relationship of current assets and current liabilities,. The ratio is calculated by dividing quick assets by current liabilities. First two years it can be observed that the liquidity position of Reliance Industry Ltd. was not satisfactory and its solvency was not sound. But there after seven year of my period of study, The quick ratio was high and norms standard this shows its sound position of solvency but on the other hand, the analysis of quick ratio for last two years shows that the surplus money invested in the quick assets

of Reliance industry Ltd. Thus it may be possible that there was not proper utilization of quick assets.

INVENTORY MANAGEMENT: -

Inventory constitutes the largest component of current assets in business organization. The turnover of working capital is much more dependent upon its turnover of inventory. In the sphere of working capital, an efficient and effective management of inventory poses challenging problem. Inventory from a like between the production and sale of a product. Therefore, it is essential that sufficient level of inventories be maintained in the business. Managing the level of investment of inventory is like maintaining the level of water in a both, tub with an open drain. The water is flowing continuously. If water is let in too slowly the tub will soon get empty. If water is let is too fast the tub will over flow. Like water in the tub, the particulars items of inventories keep on changing but the level may remain the same. The basic financial problems are to determine the proper level of investment in inventories and to decide how much inventory must be acquired during each period of maintain that level.

The objective of inventory management are (i) to minimize the possibility of disruption in the production schedule of the business for want of raw materials, stores and spares and (ii) to keep down capital investment in inventories. There are three general of motives for holding inventories.

- (i) Transaction motive
- (ii) Precautionary motive
- (iii) Speculative motive

Proper control of inventories not only solve the acute problem of liquidity, but is also increase the profitability of the business and causes substantial reduction in the working capital of an under taking Inventory control is concerned with the acquisition storage handling and use of inventories so as to ensure the availability of inventory when ever needed, provide adequate cushion for contingencies and derive maximum economy and minimize wastage and losses. Control in inventories is *exercised by introducing different measures of inventory control, such as ABC analysis fixation of norms for inventory holding determining reorder points and through a close watch on the movement of inventories.*

ABC analysis is a basic analytical tool, which enables to management to make efforts, where the results will be the highest. This technique is popularly known as “Always Better control”. A number of factors enter in to considering the determination of stock levels for individual’s items for the purpose of control and economy in the business.

Carrying to large on too small inventories is detrimental to firms. If too small inventories are maintained a industry has to encounter frequent stocks outstand, incur heavy ordering cost. Very large inventories increase the inventory carrying costs in addition to unnecessary tie-up of the working capital therefore, it is unnecessary for a industry to maintain inventories at an optimum level, where inventory costs are minimum and at the same time, where there are no stocks out *which may result in the loss of an unprecedented demand of customer and interruption in the production schedule.*

On basic problem of inventory control is now much to order. There are many formulate and models which have been developed to control inventories. All inventory models, no matter how complex, address themselves to the problem of timing and magnitude of replenishment. The optimum size is popularly referred of a "Economic order quantity". This order size would give the minimum annual cost of ordering and holding to quality as the best or least cost quantity level.

The size of inventory in absolute rupee values through out the period of the study marked in decreasing trend in the Reliance Industry Expected 1994-1995. When it increased in the unit expected in 1997-98. However the proportion of inventory to current assets in the unit fluctuated from year to year. The proportion was lowest during 1994-1995. This shows that the Reliance Industry tried to control to proportion of inventory in relation to current assets.

The inventory turnover ratio is an indicator is an indicator or liquidity of the inventory also. The turnover of inventory directly affects the profitability of the concern. The higher ratio the inventory turnover, The larger the profit of the concern. A low ratio reflects a poor management of inventories, that is possibly a situation of seasonal stocking and over buying. The inventory turnover ratio throughout the period of study was higher in Reliance Industry Ltd. The inventory turnover was generally, the highest ranging between 3.48 times to 8.44 times. The high turnover of inventory in Reliance Industry indicated that the company had conducted more business with proportionality less amount of inventories. The company should maintain this situation in further also.

According to the information published and the researchers study found that the procedures of physical verification of stocks followed by

the management are reasonable and adequate in relation to the size of the company and the nature of its business.

There were no material discrepancies noticed on physical verification of the stocks of raw materials, stores and spares and finished goods having regard to the size of the operations of the company.

The valuation of stocks is fair and proper and is in accordance with the *normally accepted accounting principles and is on the same basis as in*

There are adequate internal control procedures commensurate with the size of the company and the nature of its business for the purchase of stores, Raw materials including components, plant and machinery equipment and other assets and for the sale of goods.

The reasonable records have been maintained by the company for the sale and disposal of realizable by products and scrap, wherever significant.

PROCESS OF RECEIVABLES AND PAYABLES MANAGEMENT :-

The receivable represents an important component of current assets. They occupy the second important place after inventories and constitute a substantial portion of current assets. Trade credit is considered an important marketing tool acting as a bridge for the movement of goods from production and distribution stages to customers finally. The term receivables is defined as the when goods or services sold under an arrangement permitting the customers to pay for them at a later date the amount due from the customers is recorded as account receivables. There are three costs of maintaining receivables in a business viz. (i) collection cost (ii) capital cost (iii) default cost.

The objective of receivables management are :- (i) to obtain to optimum volume of sales (ii) to control the cost of credit and to keep in at the minimum (iii) to maintain the optimum level of investment in receivables and (iv) to keep down the average collection period. Sound administration of receivables in order that the working capital position is least strained, requires that the authority in this regard be allocated to sales of finance department. The important decision variables of a firms credit policy are (i) credit standards (ii) credit terms and (iii) collection efforts.

It is concluded that the trend of receivables marked a rising trend in Reliance Industries Ltd. during the period of study comparing the indices of receivables (taking 1990-1991 = 100) the index of receivables increased to 1089.87 in 1990-2000. This item played on important role next only to that of inventory receivables of Reliance Industry Ltd. Comprise the total of sundry debtors and Misc. current assets. Each component of the receivables has been analysed separately to have a deep insight in to the subject and draw meaningful and objective conclusions of the huge amount of rejected materials in this component lying with it pending dispatch to the suppliers during the period under the study. Besides government agencies, like port trust, customers, railway and other also made it obligatory on Reliance Industry Ltd. to block heavy funds with them in the form of deposits for long spells.

The turnover of account receivables reveals that the efficiency of the staff entrusted with collection of bank debts. A rising turnover of account receivables indicates that the industry is trying either to tighten its credit and collection policies or to drive out the slow paying customers. The turnover of account receivables ranged from 1.80 to 5.76

with a rising tendency during the period under the study. Thus, the management of account receivables controlled its loans, advances, and improved the market for the products in Reliance Industries Limited particularly towards the end of the period under the study.

The turnover of debts in Reliance Industry Ltd. had been ranging from 3.15 to 9.84 suggesting that its management had been controlling its debtor's efficiently. Further, the analysis of book debts to net sales in terms of percentage re affirms this conclusion as the percentage of book debts to net sales ranged from 10.17 to 31.77.

The average collection period measures the quality of account receivables since it shows the rapidity or slowness with which money is collected from them. The average collection period increasing the throughout the period of study. A shorter collection period implies prompt payment of debtors. It reduces the chances of bad debts. A longer collection period implies a too liberal and inefficient credit and collection period in the concerns showed sickness of collection efforts. Therefore, it is recommended that the efficiency of the staff employed for the collection of book debts should be improved by keeping a close watch on out standing accounts and by taking timely action for making recovery of over dues.

CASH MANAGEMENT :-

Cash the most liquid assets is of vital importance to the daily operations of business firms. Cash is both the beginning and end of the working capital cycle. Cash inventories, receivables and cash. Its effective management is the key determinate of efficient working capital management. Cash like the blood stream in the

human body, gives vitality and strength to a business enterprise. Adequate supply of cash is necessary to meet the requirements of the business, its shortage may stop the business operations and may degenerate a firm in to a state of technical insolvency and even or liquidation though idle cash is sterile its retention is not without cost. The three motives for holding cash: (i) transaction motive (ii) the precautionary motive and (iii) speculative motive. The basic objectives of cash management are (i) to meet the obligation on due dates, and (ii) *to maintain an optional level of cash in the business.*

The industry should evolve strategies regarding the functions of the cash management. The main functions of cash management are (i) cash planning (ii) managing the cash flows (iii) optimum level of cash and (iv) investing idle cash. The cash budget is the most important and popular technique of determining of cash in the business. The size of cash balance in Reliance Industry Ltd. The index of cash had increased from 100 in 1990-1991 to 12122.77 in 1998-99 but decrease in 2676.98 in 1999-2000. The size of cash held by the unit under the study was for short as compared to the total requirements during the period under the study.

Cash balances in this industry, represent cash in hand, cheques in hand, cash with scheduled banks in current account, saving/deposit accounts are margin money, cash in transit and cash in foreign banks. Out of these modes of keeping the cash in current account with scheduled banks and cash in hand are the most popular and more than half of the cash balances in the industry have been found in these two forms during the period under review.

With a view to analysis the variations in the size of cash three ratios, namely, cash to current assets ratio, cash to sales ratio and cash to current liabilities ratio, cash to current assets ratio registering a fluctuating trend through out the period under the study. It has been fluctuating from 54.12 percent in 1998-1999 to 3.46 percent in 1990-91. In other word, it is concluded that the volume of cash held by the Reliance industry Ltd. under the study period had fluctuating trend over the period under the study.

The cash to sales ratio is important to control the level of cash in a concern. The ratio showed a declining trend in the unit throughout the period of the study except in 1999-2000. This ratio ranging between 33.65 percent in 1998-1999 to 1.92 percent in 1990-91. It indicates that adequate efforts were mode by the company to control the cash flow. It is therefore, recommended that the company should establish a standard of the cash to sales ratio and should take corrective action of the performance deviates from the established standard.

The cash position ratio is another way of looking at the efforts of the company to control the cash balances. It analysis the level of liquid resources in relation to current obligations.

The cash to current liabilities ratio in Reliance Industry Ltd. registered a upward trend ranging with the 4.86 in 1990-1991 to 90.22 percentage in 1998-99. Throughout the period of the study.

The current assets of a concern can be financed by a combination of long term and short-term sources of finance. The long-term sources provide support for a small part of current assets requirements, which are known as working capital. The long-term sources indicate share capital, borrowings, retained earnings, and depreciation provision. The short-

term sources of finance include sundry creditors and short-term loans and advances as external source and proposed dividends and provision for taxation etc, as internal sources. The finance the current assets the firm must decide on approximate mix of short term and long-term sources of finance. On the basis of this study, conclusions have been drawn regarding the financing policy of current assets of Reliance Industries Ltd.

The company has not taken any loans, secured or unsecured, from companies firms or other parties as listed in the register maintained under section 301 of the company act. 1956 or the companies under the same management as defined under sub-section (1B) of section 370 of the companies act. 1956. The company has not given loans, secured or unsecured to companies firm or other parties as listed in the register maintained under section 301 of the companies act 1956, or to the companies under the same management as defined sub-section (1B) of section 370 of the companies act. 1956, except for debentures hold where the rate of interest and other terms and conditions are not prima facie prejudicial to the interests of the company. In respect of interest free loans given to subsidiaries where there are no stipulations regarding repayment, in my opinion having regard to the long term involvement with this companies and considering the explanation given to us in this regard, the terms and conditions of the above are not, prima facie prejudicial to the interests of the company.

IMPACT OF INFLATION ON WORKING CAPITAL MANAGEMENT :-

Inflation is a general increase in prices of goods and services in a country. The present economic situation combines a high rate of inflation with a high level of unemployment after completion of this chapter we should be able to :-

- 1- Explain the impact of increase in price level on financial statements.
- 2- To make adjustment in (conventional) financial statements for increase in general price level resulting in decrease in purchasing power of money.
- 3- To prepare financial statement on the basis of current cost instead of historical cost.
- 4- To find out the impact of inflation on working capital requirement.

Income statement and financial position statement prepare as a part of final accounts for external reporting are prepare in accordance with the “Generally accepted accounting principal” (GAAP). A very important principal used in this accounting process is “money measurement” (monetary unit) principal this principal explains that all business tranjections are major in money unit, and not the natural unit of measurement for the items concern. This facilities recording and summarization of all business result. Although the application of money unit for measurement of business transaction is based on the implicit assumption that the purchasing power of money remains same over a period of time and even if there is a change in a purchasing power of money. That change insignificant from the point of view of users of accounting information. And thus, need not be accounted for to finalish accounting report. However the above assumption holds good is there is

either no change or insignificant change in the price level. It is quite clear on noted that the purchasing power of money and the change in price level inversely correlated with each other. The nature and quality of accounting information, the depends on the truth fullness of the above mention assumption, i.e. insignificant change in the general level of change. If this assumption is vitiated i.e. does not hold good. The accounting information provided in historical cost ways financial statements becomes distrustful there by effecting with relevance for users of accounting information it may be concluded that there is a impact of inflation on working capital requirements : when the inflation rate is high, it will have its direct impact on the requirement of working capital as :-

- Inflation will cause to show the turnover figure at higher level even if there is no increase in the quantity of sales. The higher the sales means the higher level of balances in receivables.
- Inflation will result in increase of raw material prices and like in payment for expenses and as a result, increase in balances of trade creditors and creditors for expenses.
- Increase in valuation of closing stocks result in showing higher profits but without it realization in to cash causing the firm to pay higher tax, dividends and bonus. This will lead the firm in serious problems of funds shortage and firm may unable to meet its short term and long term obligations.
- Increase in investments in current assets means the increase in requirement of working capital without corresponding increase in sales or profitability of the company.

Keeping in view of the above, the finance manager should be very careful about the impact of inflation in a assessment of working capital requirements and its management.

SOME MAJOR FINDINGS RELATED

RELIANCE INDUSTRIES LTD.

1- Reliance's overall operating earnings presently depend largely on the profitability of its refining and petrochemicals business; the core of its business portfolio. Both these business being global and nature but my study focuses on the textile business. Textile division consolidated its position further in key markets like Europe, USA, Far East, and Middle East etc. Besides continuing the thrust on exports, an attempt was made over the period of my study to sell directly, to the final consumer in the form of precut, Pre-packed goods. This category of goods was sub branded as V2.

2- Since the early 1990s, Successive Indian governments have pursued policies of economic liberalization, including significant reduction in restrictions on the private sector. However, the role of government in the economy remains significant. There is a risk that the pace of liberalisation, and the reforms process could change, and specific laws and policies affecting companies, including Reliance, could change as well.

3- Foreign exchange rate volatility has an impact on the business of the company and on foreign currency debt held by the company. Reliance

undertakes liability management transactions and other structured derivatives such as interest rate swaps and currency swaps on an ongoing basis, to hedge and diversify its foreign exchange liability.

4- Growing foreign exchange reserves over the past several years have lent stability to India's currency, thus minimising potential for adverse impact caused by any unfavourable foreign exchange rate movements. The company's growing export revenues, and foreign exchange denominated oil and gas revenues, provide more than sufficient cover for its annual external debt service obligations.

5- As part of its overall risk management strategy, Reliance consistently insures its assets and operations against a wide range of risks. Reliance also adopts appropriate technologies, manufacturing practices, HRD policies, and a suitable HSE framework to manage potential operational risks.

6- An extensive system of internal controls is practiced by Reliance to ensure that all its assets are safeguarded and protected against loss from unauthorised use or disposition, and that transactions are authorised, recorded, and reported correctly.

7- The company has an internal control system that is geared towards achieving efficiency in operations, optimum utilisation of resources, effective monitoring and compliance with all applicable laws and regulations.

8- An extensive programme of internal audits, reviews by management, and documented policies, guidelines and procedures, supplements the internal control systems that are designed to ensure reliability of financial and all other records to prepare financial statements and other data, and to maintain accountability of assets.

9- The effectiveness and efficiency of Reliance's internal control systems have improved with the implementation of SAP/R3 financial and business management systems., which provide a high level of system-based checks and controls.

10- Reliance has robust and independent internal audit systems to monitor the entire gamut of operations and services spanning all locations, businesses and functions, on a regular basis. Internal audit includes evaluation of all financial, operating and information technology system controls. In addition to the in-house team, several leading national and international professional firms are on Reliance's internal audit panel. Top management and the audit committee of the Board review the findings and recommendations of the internal audit panel.

11- Reliance continues to sponsor and participate in various R & D efforts at premier institutes in India and abroad including the Indian Institute of Technology, Mumbai; Jawahar Lal Nehru centre for Advanced Scientific research, Bangalore; MBT, Pune; National Chemical Laboratories; University of Massachusetts, USA and Polymer Institute Brno, Czech Republic.

For the first time in India, outsourced program at MBT Pune has resulted in coveted international publication elucidating combinatorial chemistry application in Catalysis.

At the Reliance technology center (RTC) pilot plants are being set up to develop differentiated polyester products. These Plants would have facilities to study batch polycondensation, continuous polycondensation and spinning.

12- In Reliance Industries as a part of ongoing exercises, several development activities were carried out to reduce costs, improve safety, cut energy consumption and optimise processes.

13- Reliance is committed to continuous improvement in quality for the entire range of its products. Reliance has full-fledged laboratory services at all its complexes employing around 800 international analytical methods and nearly 1,600 instruments in 25 analytical facilities.

Each analytical laboratory engages and adopts the most modern trends in the analytical field and provides reliable service to meet customer satisfaction. A centralised Quality division facilitates the interaction between various cities and groups, including various units of IPCL, to share and communicate knowledge.

Over the period of my research, the focus was particularly on activities with specific importance to management systems and process support studies. *Six new facilities were created at Hazira to evaluate that quality of PE pipe, PET, and furniture grade PP. Several studies were also conducted to rectify process problems and improve the quality and yield of the final product.*

Along with manufacturing facilities, the respective laboratories were also credited with ISO 9000 and 14000 certification. The polyester testing laboratory at Coimbatore achieved the distinction of NABL certification as an independent testing laboratory. The refinery laboratory at Jamnagar has successfully implemented the ISO 17025 system with final certification audit due in May 2003.

14- Reliance's efforts in quality received many accolades during the year, which included.

- Golden certification from shell Main products Correlation Scheme (SMPCS) for best analytical laboratory to Jamnagar refinery laboratory from among more than 100 laboratories in the world
- TQM Merit award for polymer laboratories and top trainer award.
- IMC Ramakrishna Bajaj National Quality Award – 2002 for the Hazira Complex.

15- Reliance is committed to provide adequate and modern occupational health and medical services to all its employees. Well-equipped occupational health centers have been established at Patalganga, Hazira, Jamnagar and Naroda for catering to preventive and curative health.

The occupational health services, manned by qualified doctors and trained paramedical staff are involved in continuously improving the health standards by providing state-of-the-art preventive and curative services. They are also involved in various health promotion activities as well as continuous improvement in workplace environment.

The occupational health activities of these centers include pre-employment medical examinations, periodic medical check-ups of employees, school health check-ups, health audits, biological monitoring and comparative studies of interdepartmental health. Periodic health risk assessment studies for exposure to various chemicals are also carried out in the plants.

Health education and awareness are accorded high priority. Reliance has evolved an effective multi-disciplinary approach for creating health awareness programmer to address issues like hypertension, diabetes, heart disease and life style management.

The medical centers also participate in various medical camps organised for the benefit of local communities and are an integral part of on-site and off-site disaster management teams.

16- Commitment to safety is of paramount importance at Reliance. My study period the health, safety and Environment (HSE) policy was revised to reflect company's position on HSE issues and to strive to be a leader in management of HSE.

New York permit procedures, developed last year, have now been fully implemented in Patalganga and Hazira complexes. The Jamnagar complex is in the process of switching over to the new procedures. The new procedures provide for more checks and responsibility according to the hazard potential of each activity. All sites now carry out Risk Assessment/Job Safety Analysis for all major maintenance and first-time activities.

There has been an increased emphasis on safety of contract workers by way of increased training. Training person-hours for contractors showed a quantum jump over the study period.

The British safety council conducted a safety and health management audit at hazira and Patalganga in December 2002 and at Jamnagar in April 2003, and awarded the highest Five star rating to all the complexes.

17- At Reliance, clean environment for sustainable development is of prime concern, and is an important business objective, achieved by every employee's contribution and responsibility towards environmental performance.

The layered system of environmental monitoring and audit is followed in compliance with all environmental protection laws of the land through all project stages – from planning to commissioning and production.

The HSE group at each manufacturing complex regularly monitors and audits specific maintenance systems to ensure regulatory compliance.

The Jamnagar refinery complex is currently in the process of implementing the Environment Management system conforming to ISO 14000.

The refinery complex operates without any burden on local water resources of the region and the integrated desalination plant of the refinery produces desalinated water for use in process and domestic applications. Reliance supplied 3,500 lakh liters of potable drinking water from the desalination plant to Jamnagar city during the summer of

2002. The refinery complex has been getting a rebate from the state pollution control Board in the water cases consecutively for the past four years.

Reliance places great emphasis in developing greenery and landscaping as an in-built environmental protection measure. Treated effluents are used are used for enhancing greenery. In addition, various biological sludge an organic solid waste is composted and processed biologically to generate natural fertilizer. A combination of these efforts and recycling of paper have resulted in halving solid waste.

The conserve water and land resources, has filters have been installed to filter out dust particles and trees have been planted in windward directions to arrest the flow of dust.

The Hazira complex is the first integrated petrochemicals complex in India with ISO 14000 certification for its implementation of the Environmental management system (EMS).

The complex has adopted 'waste to resource' methods for continual improvement sustainability. As part of this effort, canteen waste in being treated in a digester unit to produce biogas, which I utilized as fuel in the petrochemical complex.

Several measures have been adapted to conserve precious water resources, including the recycling of treated effluent to the maximum possible extent, and adoption of a drip irrigation and sprinkler system for greenbelt development.

A vermiculture plant set up to convert in-house garden waste into organic fertilizer has operated at full capacity over my study period and about 40 MT of vermicast (vermiculture based fertiliser) was produced and utilised within the complex as partial substitute for other fertilizers.

For the second consecutive year, the Hazira complex was awarded the Indo-German Greentech Environment Excellence Award (instituted by Greentech Foundation) in the petrochemical category.

The Patalganga complex has also developed and implemented a number of sustainable environmental schemes, and continued improvement in ISO 14000 certification of the Patalganga complex in May 2002.

18- A five-point scalable approach sums up HR practices at Reliance. The company believes in empowering colleagues through greater knowledge, opportunity, responsibility, accountability and reward. This is the bedrock of all growth at Reliance, where growth is life. It is the benchmark by which it gauges best practices as ideal employers and enablers in India and globally.

Reliance takes immense pride in providing an equal Opportunity work environment, and places great emphasis on identifying nurturing and freeing up talent. This involves a practice of encouraging youth, urging experienced colleagues to mentor people and processes, and inculcating a can-do culture that moulds itself to evolving personal aspirations and corporate goals throughout the carrier of the individual.

19. **Social Responsibility and Community Development :-**

Reliance implicitly believes that corporate responsibility extends beyond the ambit of a company's facilities and offices. And that true corporate citizenship must include common cause with society. In keeping with this belief system, Reliance encourages, funds & develops numerous education, health and human capital initiatives. While many of

these initiatives are now recognized in India and abroad as model approaches, we derive greater inspiration for our mission of partnership with society when graduates of Reliance-funded institutions of higher learning in cities, children in Reliance-sponsored school in villages, and patients in Reliance-led hospitals emerge to lead lives of aspiration, good health and fulfillment.

Educational Initiatives:-

- * Dhirubhai Ambani Institute of information and communication technology (DA-IICT), Gandhinagar.
- * Dhirubhai Ambani University of Science and Technology, Jamnagar.
- * Dhirubhai Ambani International School, Mumbai.

Scholarships and Healthcare Initiatives :-

- * Sir Hurkisonadas Nurrotumdas Hospital and Research Center (HNHRC), Mumbai
- * Sir Hurkisonadas Nurrotumdas Medical research Society (HNMRS), Mumbai
- * Dhirubhai Ambani Hospital, Lodhivali, Raigad

Community Development

At its manufacturing locations, Reliance runs schools that provide quality education to the children of employees, and also to children living in nearby areas. Free transport is provided to all, enabling students living in nearby villages to attend school everyday.

Over the study period under review, community services carried

out at Jamnagar include construction of tar road in 11 nearby villages; construction of community halls, panchayat buildings and anganwadi in several villages; supply of fodder to nearby villages; organization of blood donation camps and health diagnostic camps; and supply of drinking water.

At Hazira, community services include donation of computers to all primary schools and three high schools of the area; organizing inter-school and inter-village sports and cultural competitions; awards to motivate meritorious students; mobile health van services and several medical camps; and initiatives to provide self-employment opportunities to women and physically handicapped persons.

The Hazira complex was awarded trophy for highest number of blood donations in Surat district for the fourth consecutive year.

To improve the quality of life of the community, Reliance's Patalganga complex. Over the study period undertook several initiatives in nearby areas such as construction of school rooms and community hall; providing drinking water to villages; women's development schemes; vocational education programs and trade familiarization schemes; health and hygiene awareness programs; child education programs and managing creches; free medical camps; and planting trees.

20- Reliance's Corporate Governance principles uphold its global standing at the forefront of corporate governance best practices. Reliance continues to review its corporate governance practices to ensure that they continue to reflect domestic & international development to position itself to conform to the best corporate governance practices. It takes feed

back in to account in its periodic reviews of the guidelines to ensure their continuing relevance, effectiveness and responsiveness to the needs of local and international investors and all other shareholders.

SUGGESTIONS FOR FURTHER RESEARCH :-

Suggestion for further study have multiple dimension. There is a considerable scope for further research in this particular industry in areas like capacity utilization, industrial relation, price inflation, productivity and such other areas. Case studies of major textile manufacturing companies may be taken up to study their efficiency in the areas such as production, management, finance, other tools of analysis such as analysis of various and regression could be used to substantiate the findings of various studies. A few promising lines of investigations, however, are given below.

1. To achieve better value addition, all the interested manufacturing all over the country should be given equal opportunity to develop value added products by way of involving them in the collection and processing of minor textile industry, as this will introduce an element of competition as well as achieve larger collection of raw materials and more remunerative price will be received by textile can growers.
2. No state government should be allowed to collect any sales tax on textile.
3. A multivariate analysis would provide additional information about the effect the casual factors of financial ratios.

4. Another techniques analysis of company financial performance would further substantiate the findings of the present study.
5. International comparison of company financial analysis and the effect of certain exogenous variables on them could be made, and their findings generalized.
6. A study of working capital analysis of public and private limited companies could be conducted on similar lines.
7. Mass education through radio and T.V. is very important to educate the people or public worker, etc. of importance of textile purchasing a price value and encouraging the supplier and customers.
8. The estimates of returns to scale and elasticity of cost refer to the overall economies of scale enjoyed by the particular company. But many times, constant return to scale may result simply from the fact that economics of scale in respect of other. Thus, in order to find out whether the estimated returns to scale result from large economies of scale in the use of some, it may be important to estimate to economics of sale in the use of each unit. We need, hardly mention that knowledge of such specific economics may be quite useful from the managerial as well as the policy point of view.
9. Since the textile industry has been operating under both price and distribution controls and manufacturers have been attributing sole responsibility to them for sluggish growth of the industry, it may be

useful to investigate the effects of these controls on both capacity utilization and capacity expansion in different companies. Again the non-availability of data on the retention price of textile for each company and for all sample years forbade to investigate the effect of price controls.

Since at the industry level, the rate of capacity utilization is shown to depend on the age of machinery and since many of the factories continue working with old and absolute machinery. It may be useful to identify the efficient and inefficient units in a company so that inefficient units could be given proper attention for rehabilitation and improvement. Evidently in-efficient unit generally suffer as member of a large company which may have efficient units as well. Such as analysis would be capacity utilization rates and production. It would also be important for correctly interpreting constant returns to scale.

10. Since the cost function used in this analysis is highly non-linear in parameters, it might improve the results if the cost functions are estimated by some non-linear algorithm, and

11. Of course, the improvement in the quality of data used in any empirical study always leaves considerable scope for further work.

As the development in textile industry in the retrospect are a backdrop to the present situation, the role of the government of India comes in for a comment. The controls are impose on price and distribution to serve the public sector needs and for seeking the favour for general public. The loss to the textile companies due to erratic power supply and neutral calamities also indirectly involves the government for its own failure in vigilance and extension of subsidy. It is universally acknowledged that

textile industry is a basic consumer industry and it is a bad shape. The need of the day is for the formulation of a suitable government policy to help the industry modernize itself.

There are no doubt, other suggestions which are worth exploring. Nevertheless a base has been provided for examining financial sound the effect of various casual factors on the financial position of textile manufacturing companies by utilizing the financial ratios as the basis of study.

SUGGESTIONS

1. There is an urgent need to bring about a change in the attitude of the managements towards working capital. During the course of investigation, it has been found that the management normally consider the liquidity aspect of working capital management to be all important and do not pay much attention to the profitability of funds employed in it.
2. There is an urgent need for a separate integrated "inventory management department" under the direct control of the managing director or chairman of the unit under the study. This department may be assigned the responsibility of the functions like materials planning and programming, purchasing, receiving and inspection, storekeeping and issue, inventory control, disposal of scrapes and surplus stores and utilization of by products. This seems unavoidable with view avoiding stockpiling of the various components of the inventory under the study.

3. The reduce the raw materials inventory norms both for the consumption and stocking of various raw materials should be laid down on a scientific basis and in no case should they be violated practice.
4. Suitable formula indicating the position of various components of inventory at periodical intervals (say monthly) should be introduced in order to exercise an effective control on the overall inventory.
5. With a view to lowering investment in receivables on certain well established principals of receivable management. Allocation of authority pertaining to credit and collections to some specific department, selection of proper credit terms and laying down of sound collection policies and procedures would go a long way to improve collection.
6. The industry should also make effort to expedite the dispatch to the supplies the rejected materials, which remain included in the loans and advances. Components of receivables so as to reduce the burden on working capital.
7. The government agencies, like prottrust, customs and railways need not make it a rule for the industry to unnecessarily block heavy funds with them in the form of deposits for log spells. They should change this attitude and treat the industry, as per with other types of the users to their services.
8. The diminish the proportion of debt due for over six months in the total debts, it has to be ensured the department make payments

expeditiously. The industry has to make an earnest bid to promote its collections efficiency in order to minimize the proportionate share of old debts. The responsibility for the collection of debts should be entrusted to sales department.

9. Surplus cash, if any should be invested in short term securities. For efficient performance of this function it is suggested that cash section be placed under the charge of finance experts.

10. For reducing the work in process inventory of textile industries should be made to shorten the manufacturing cycle of various products of the company. Further the work in process should not be allowed to increase on account of the unsound management labor relations and mismanagement in the plant level operations.

11. To reduce the overstocking in the finished goods inventory of Reliance Industries Limited efforts should be made to activate their sales department improve their demand estimations, carefully decide upon the range of manufacture and enter in to firm controls with customers.

12. The company which do not prepare inventory reports. If there is any lack of inventory figures of company should estimate their inventory based on "Gross profit method".

13. The Reliance Industries should tighten their debt collection efforts and should reduce the funds tied up in receivables. For this purpose

conversion metrics of receivables, based on payment pattern should be prepared.

14. To promote the collection efficiency in the Reliance Industries a monthly report of the over dues should be prepared by the credit department and submitted to the board of directors for taking suitable action.

15. The Reliance Industries should try to prepare a proper ageing schedule of debtors. This will help them reduce the bad debts losses and speed up collection efforts.

16. Adequate provision should be made for long outstanding debts.

17. The Reliance industries should administer their credit on the basis of certain well recognized and established principals of credit administration as pointed out by Harry Gross and mentioned in the fifth chapter of the present study. This would require the state enterprise to make their credit and collection policies greatly comprehensive allocate the authority in regard to the credit administration to some specific department, introduce an intelligent system in regard to credit investigation and formulate satisfactory collection policies and procedures.

18. The Reliance industries Ltd. should try to reduce their cash balance. The excessive cash funds lying idle with the company should be used

profitably. The company should be used profitably The company should be prompt in making payments so as to enjoy cash opportunities.

19. It should regularize their cash flows.

20. It should determine the optimum cash balances to be kept.

21. Reliance industries Ltd. followed an aggressive approach of financing current assets, should try to finance 50 percent of their current assets from long-term sources.

22. Various departments of Reliance Industries Ltd. should be run on the basis of business principles and must have autonomy and sufficient flexibilities in their operations. If they are required to attain the desired objects and purposes.

23. Decentralization and accountability should go hand in hand for Reliance industries Ltd. A good information system and well defined performance indicators are essential for accountability. In the private sector, the firms achieve accountable by creating profit center; while in the Reliance industries Ltd, the accountability of the public sector is partly achieved. It is suggested that a close inter connection exists among decentralization competition and accountability, which may be used to improve efficiency.

24. The government should make an effort to promote social welfare as increased expenditure on social welfare schemes is always welcomes the

challenge is to choose those forms of government intervention that minimize economic costs of interference.

25. There should be a staff training center in the Reliance industries Ltd. for improving employees performance.

26. A point often discussed in the field of Reliance Industries Ltd. is the social objective of the public sector. Social obligations would be best served only by managing its economic parameters in the right order. Happily, such an attitude is slowly developing with in the public sector and in the year, public attention has been focused on the economic management of the public sector corporation and the necessity for the generation of resources. In fact , Reliance industries should play a leading role in the sector.

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APPENDIX

QUESTIONNAIRE

(for the purpose of research work)

Working Capital Management of RELIANCE INDUSTRY (TEXTILE) LTD.

GENERAL ADMINISTRATION

1. Reliance industry (textile) ltd. Established in a year
.....
2. Management structure of reliance textile industry ltd. i.e. top level
management, middle level management and working class
.....
.....
.....
.....
.....
.....
3. Types of company :- please tick (i) spinning mill (ii) composite mill
(iii) any other
4. Who looks after the management of (Please mark)
Financial manager, chief cashier, credit manager, sales manager, any
other (please specify)
(a) working capital
(b) cash & bank balances
(c) marketable securities
(d) receivables
(e) payables
(f) inventory

5. Industry practice with regards of working capital (Please write below)

(if necessary please use separate sheet)

.....

.....

.....

6. Structure/ composition of inventory taking by the reliance textiles industry

.....

.....

.....

Composition of receivables adopted by the company.

.....

.....

7. Please specify what is included in misc. current assets

.....

.....

8. Composition of cash of reliance textiles industry ltd.

.....

.....

9. Do you feel any impact of inflation over working capital management? Yes/No

10. Any other information do you want to convey to expedite of my research work please mention

.....

.....

.....

11. Investment made by (i) financial institution (ii) banks (iii) Assist, provided by the state/central govt. (Please tick the relevant source)

12. Source of the raw material please tick following :- (a) self produced
(ii) purchased from farmers (c) import (d)
others.....
13. Please mention the cash management of Reliance industry Ltd.
(textile division)
.....
14. Labor and social welfare activities running by the organization
.....
.....
15. Suggestion for enhancing the production effectiveness and efficiency
of textile unit
.....
.....
.....
16. History and progress of textile division of Reliance industry Ltd.
.....
.....
17. Future prospect of Reliance textile unit
.....
.....
18. Problems faced by the organization/unit please MENTION any ten
main problems :-

Note :- If required, please use separate sheet.